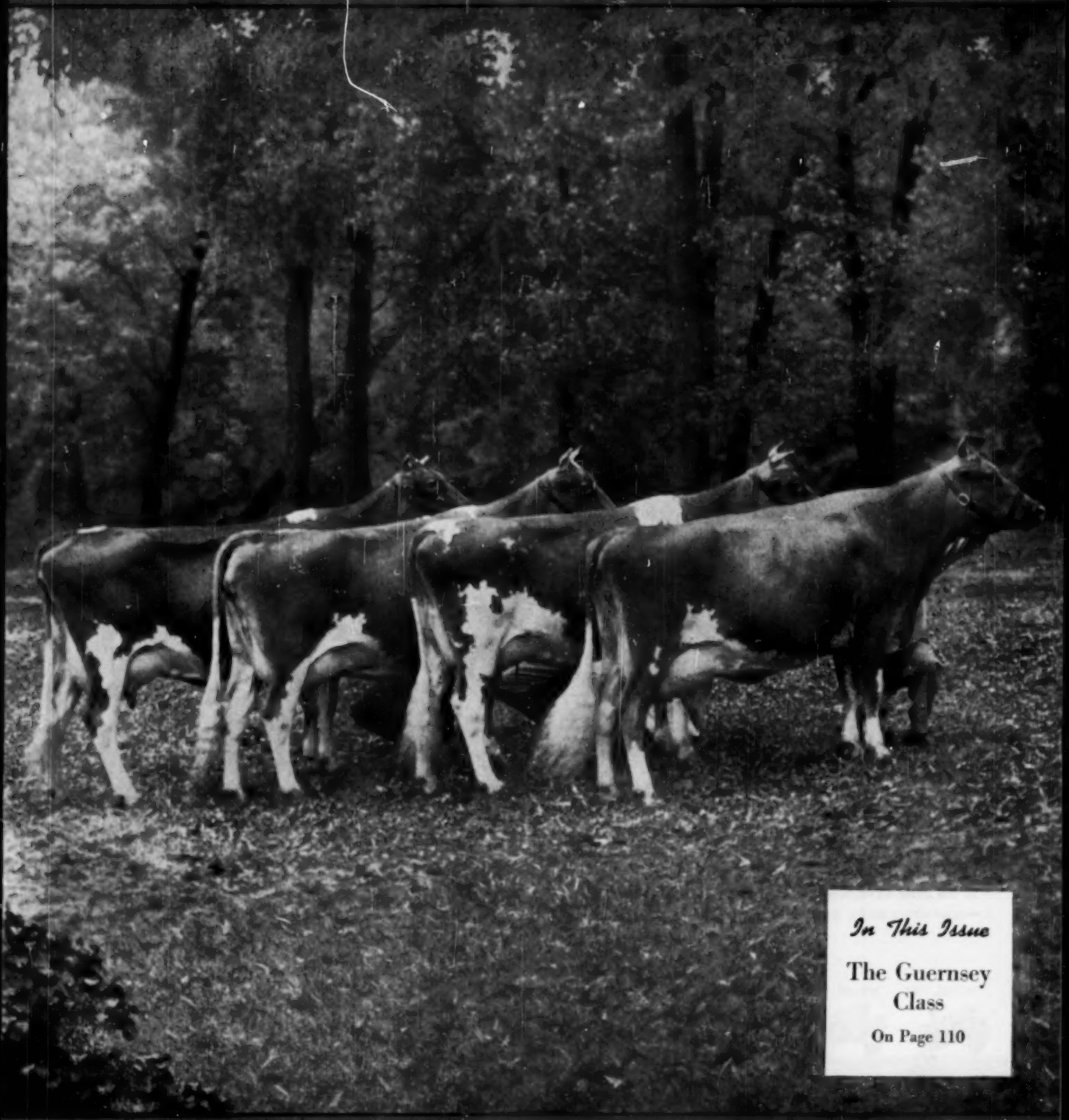
HOARD'S DAIRYMAN

THE NATIONAL DAIRY FARM MAGAZINE



In This Issue

The Guernsey Class

On Page 110

Volume 95, No. 3 Fort Atkinson, Wisconsin February 10, 1950

New Features THAT MAKE THE FAMOUS JOHN DEERE MODEL "A" AN *Even Greater Value*

6-SPEED TRANSMISSION WITH NEW "CREEPER" GEAR AND SINGLE SHIFT LEVER

Inset at left shows the conveniently-located quadrant and single shift lever on the new Model "A." Six forward speeds are provided, including a new "creeper" gear which is ideal for operating such power-driven machines, as the hay chopper, at slow travel speed with maximum power shaft output.

TWO-PIECE FRONT PEDESTAL PROVIDES 3 TRACTORS IN ONE

Right: New two-piece front pedestal now available for John Deere "B," "A," and "G" Tractors. Below, dual front wheels for all normal row-crop work.

Below: Single front wheel, one of three front-end assemblies which can be furnished. It is especially desirable for working narrow-spaced rows.

Above: Adjustable front axle which provides advantages of a standard-tread tractor for plowing and certain other jobs.

1. New "creeper" gear of 1.4 m.p.h. for more efficient operation of power-driven machines requiring slow travel speed with full power shaft output . . . for precision work in transplanting, close cultivation, etc. . . .

2. Other, more adaptable speeds of 2.5, 3.5, 4.4, 6.3, and 11 m.p.h. to handle every job better, at maximum capacity. . .

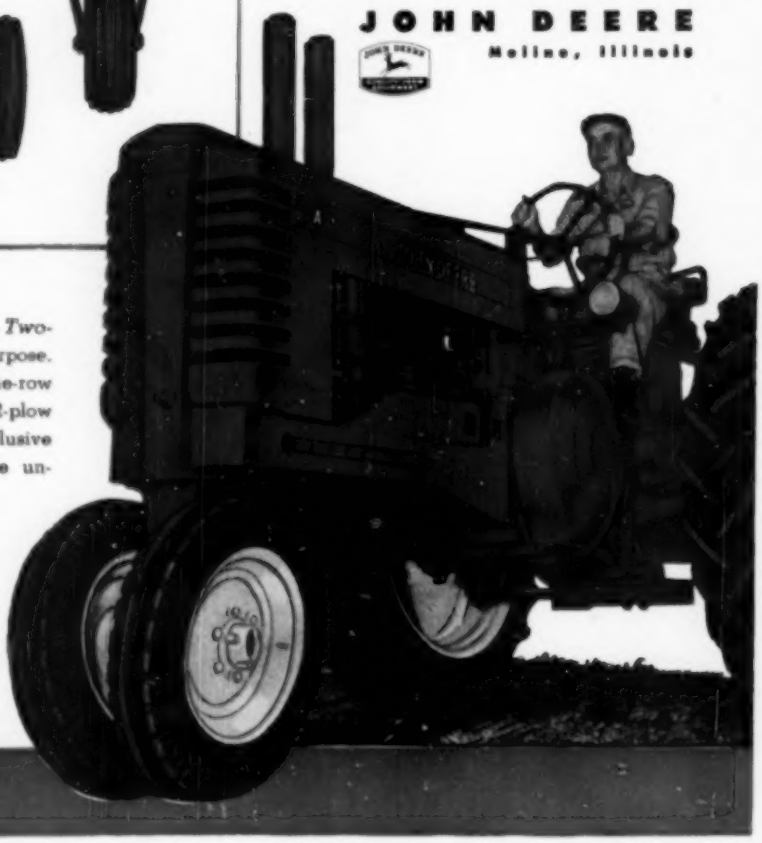
3. Single shift lever for increased operating convenience . . .

4. New, two-piece front pedestal for farmers who want to switch to single front wheel or adjustable front axle for special work . . .

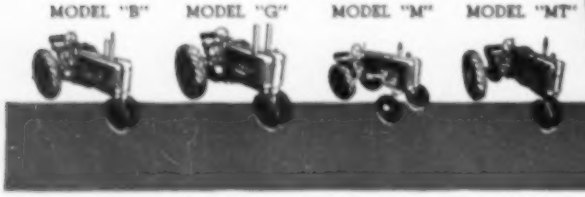
. . . these are the new advantages you get in the new John Deere Model "A" . . . the tractor that meets the complete needs of farmers who want heavy-duty, 2-3-plow power.

Modern from the word "go," the "A" offers you Hydraulic Powr-Trol for finger-tip control of *both* integral and drawn equipment . . . Roll-O-Matic "knee-action" Front Wheels for easier, smoother operation . . . and every modern feature you could ask for to do better work in less time with less effort and in greater comfort. See the new Model "A" at your John Deere dealer's; write today for free literature.

JOHN DEERE
Moline, Illinois



THE MODEL "A" is one of a great family of John Deere *Two-Cylinder* Tractors for every farm . . . crop . . . purpose. Other general-purpose models include the 1-2-plow, one-row Model "M," the 1-2-plow, two-row Model "MT," the 2-plow Model "B," and the 3-plow Model "G." With their exclusive *two-cylinder* engine design, John Deere Tractors are unequalled in simplicity and strength of parts, unmatched in the basic advantages you want in your next tractor —greater economy, greater dependability, longer life.



Unmatched in traction

—that's why most farmers want it!

Only Goodyear Super-Sure-Grips give you:

Maximum Traction from straight lug bars—Lugs extend straight across tire's crown—don't curve toward direction of travel. So you get full-lug pull, longer wear, no wobble.

Better Grip from lugs positioned for pull—Equally sized and spaced lugs are set closer together at shoulder for wedge-like action and soil-squeezing grip.

Deeper Bite from Goodyear OPEN CENTER design—Goodyear lugs give clean, full-depth penetration, with no hooks, knobs or elbows to blunt their bite.

It's a fact that no other tractor tire can compare with the famous Goodyear o-p-e-n c-e-n-t-e-r SUPER-SURE-GRIP in traction and pulling power under year-round working conditions.

Proof of that comes straight from the farm. In a recent nation-wide survey, America's farmers voted Goodyear *first choice* by a big margin!

The reasons for Goodyear's superior pulling power are the THREE exclusive features listed in the panel above. Only SUPER-SURE-GRIPS have this combination of soil-biting o-p-e-n c-e-n-t-e-r design and straight-edged equal-size lugs, properly positioned for wedge-like grip, that gives *"the greatest pull on earth."*

That's why there is no substitute for Goodyear SUPER-SURE-GRIPS—no "just as good" tire. Goodyear engineers have tested hundreds of tires with all basic tread variations without finding one that equals it in tractive power, smooth riding and long working life.

So don't be fooled by tires that seem to resemble the farm-proved Goodyear o-p-e-n c-e-n-t-e-r SUPER-SURE-GRIP. The SUPER-SURE-GRIP is the tire most farmers want because it goes where other tires won't—yet doesn't cost you a penny more.

It's think you'll like "THE GREATEST STORY EVER TOLD"—Every Sunday—ABC Network

GOODYEAR

Super-Sure-Grip Tractor Tires

Super-Sure-Grip—T. M.
The Goodyear Tire & Rubber Company

LIVELY STEPPER IS THIS SUPER—Model 51, 4-door fastback Sedan — with its brilliant new F-263 Fireball engine of 124 or 128 hp. Dynaflow Drive* optional.

Now on display at your Buick Dealer's—the beautiful 1950 Buicks. See them now!

From price to performance—

EVERY ONE HAS EVERYTHING!

WITH the word out just a few short weeks, car buyers are already making a beeline for Buick . . .

Making the most of a long-awaited chance to pick and choose the car of their dreams.

For Buick for 1950 offers a brilliant array of models of every type, and a brilliant line-up of features in every model.

Coupe, Sedan, Sedanet, Convertible, Riviera, Estate Wagon models—and each one a Buick through and through.

Four wheelbases to choose from—and every chassis a brawny, sure-footed stalwart that's soft of ride from all-coil springing, steady all the way from torque-tube rigidity and wide, wide rims.

Five horsepower ratings for truly wide selection—and every power plant a flashing Fireballing valve-in-head straight-eight of stepped-up horsepower and higher compression.

There's more, lots more. Room, handy size, wonderful visibility—Dynaflow Drive* too.

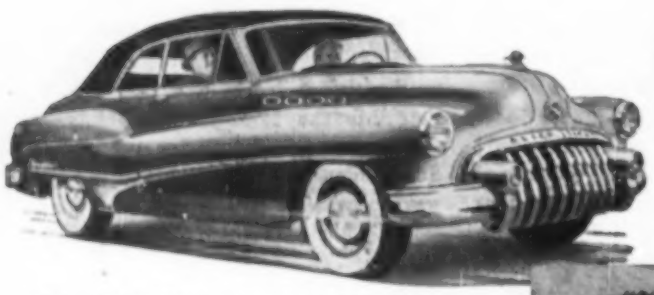
And prices that bow to your budget. Price tags that cover the field from just above the very lowest to those that spell bargain in big letters in the fine-car field.

Go see what we mean. Go see your Buick dealer and pick the model you like best at a price to fit your purse.

Delivery on most models is mighty fast. So—*get that order in.*

**Standard on ROADMASTER, optional at extra cost on SUPER and SPECIAL models.*

BUICK DIVISION OF GENERAL MOTORS



THIS BUICK CONVERTIBLE is shown on the ROADMASTER chassis of 126¾" wheelbase, 152 Fireball hp. Dynaflow Drive* standard. Also available on SUPER chassis with 121¾" wheelbase, 124 or 128 hp and Dynaflow Drive* optional.

ONE OF SEVEN BRILLIANT SPECIALS is this Model 43 jetback 4-door Sedan. 115 or 122 hp valve-in-head straight-eight Fireball engine. Choose from 3-passenger Coupe, two 2-door Sedanets, four 4-door Sedans. Dynaflow Drive* optional.

Tune in HENRY J. TAYLOR, ABC Network, every Monday evening.

When better automobiles are built BUICK will build them

WHATEVER YOUR PRICE RANGE

"Better buy Buick"

YOUR KEY TO GREATER VALUE

HOARD'S DAIRYMAN

The National Dairy Farm Magazine

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COVER PICTURE

This issue contains the Guernsey class in the 20th Annual Hoard's Dairyman Cow Judging Contest, found on page 110. Our cover picture is the get of Myhaven King, first place winner at the 1949 National Guernsey Show held at the Dairy Cattle Congress. McDonald Farms, New York, bred and owns these four animals, pictured from left to right:

McDonald Farms King's Jolly Lady, 12,418-622-Jr. 2-365C; McDonald Farms King's Leta, 11,387-575-Jr. 2-365, junior champion at 1947 National Guernsey Show; McDonald Farms King's Lady Gay, 8,338-316-Sr. 2, 288 days, 1st 3-year-old at 1949 International Dairy Exposition; McDonald Farms Honeybloom, 11,162-657-6 yr.-365, 2nd to grand champion cow, and her son was reserve grand champion at National Show. All records on 3x.

Five daughters of Myhaven King have been classified Excellent and 92 have finished official records. His junior gets were undefeated in 1947 and 1948. A granddaughter holds the record price at auction for an open heifer, $11,500.

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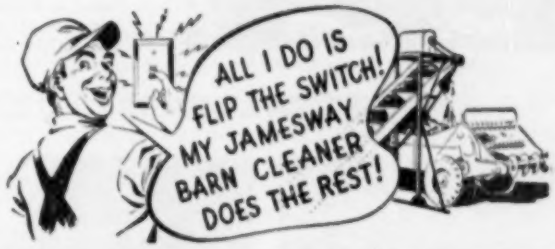
The receipt of Hoard's Dairyman is notification that money on subscription has been received. The label on paper will show date to which subscription is paid. Changes of address should reach us three weeks in advance. Include old address.

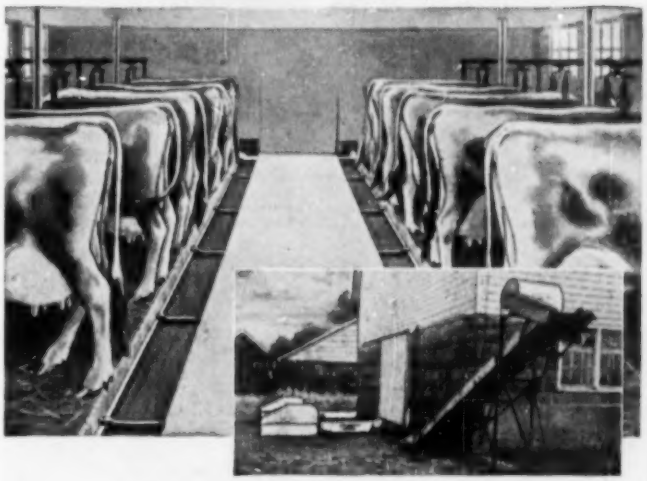
Unwholesome, immoral, and questionable medical advertising is excluded. A sincere effort is made to carry advertising of only reliable people. We will always take it as a favor to be notified promptly whenever any advertiser's dealings with the subscribers are not in good faith or evidence a lack of business honor. Advertisers recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

Hoard's Dairyman is published on the 10th and 25th of each month. Advertising copy for the 10th of the month issue must be received before the 15th of the preceding month. For the 25th of the month issue, copy must be received by the 1st of that month.

NEW Jamesway Barn Cleaner!

Saves UP TO 1½ hours a day





Now Patented Shuttle Action Ends Drudgery
Gives You All These Big Advantages

No more stooping, scraping . . . heavy lifting for you! With the Jamesway Barn Cleaner you just flip the switch! It cleans your barn cleaner!

Jamesway's amazing new pull-push shuttle action moves manure from gutter straight to the spreader. No chains in the gutter, no cross gutters, no inside pits! Clean your barn only once a day if you wish. The Jamesway Barn Cleaner is built to handle the load.

Stop in and see your Jamesway Dealer the next time you're in town. Let him show you how the new Jamesway Barn Cleaner can save you up to 1½ hours every day of the year. For *free* time-saving folders, mail coupon below.

1. Fits any barn . . . any gutter.
2. Power and strength for once a day clean out.
3. No indoor pits or cross gutters to collect filth.
4. Does away with idlers, gears, chain and cable drag lines inside stable.
5. Flat top paddles fold out of way. Permits hand cleaning when cows are on pasture.
6. Exclusive pull-push action does not take out valuable stall space.
7. Ideal for barns with single row of stalls.

ELMIRA, N. Y. **Jamesway** LOS ANGELES 33, CALIF.

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Valuable time-saving literature.

Dept. HD-250, FT. ATKINSON, WIS.

Please send literature on items checked. Tell me how to get FREE plans for my needs. I plan to build or remodel:
Dairy Barn ☐ Hog House ☐ Poultry House ☐.

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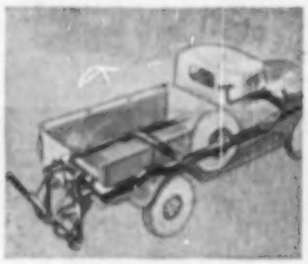
World's Largest Makers of TIME-SAVING EQUIPMENT for Cows, Hens, Hogs

The all-purpose farm vehicle!

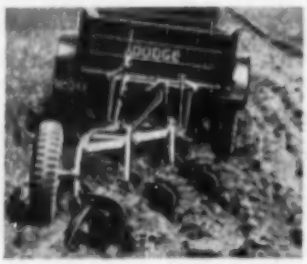
For Easier, More Profitable Farming

From breaking soil to harvest, a Dodge Power-Wagon can save time and money on *your* farm. The Power-Wagon combines, in one mobile unit, the functions of tractor, truck and power plant. With 4-wheel drive, the Power-Wagon gives TRACTION *when* you need it. It gives *PULL as* you need it. It gives POWER *wherever* you need it. Study these pictures. See how this vehicle can bring you easier, more profitable farming. Then talk with your Dodge dealer.

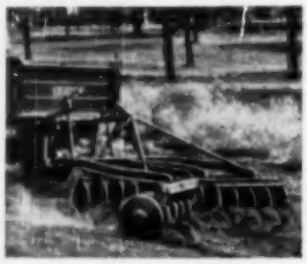
1 The Power-Wagon gives you more horsepower than most farm tractors. Its big express body is 9 feet long, 4½ feet wide. Capacities range up to 8700 lbs. (gross weight).



2 For ONE-FIFTH the cost of a tractor, this "Hydraulic Lift" permits you to operate 3-point hitch implements (attachable in 60 seconds) with "finger-tip" ease.

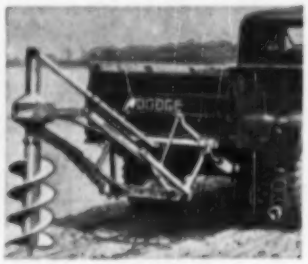


3 With more horsepower than most farm tractors, the Power-Wagon easily pulls a three-bottom plow through the toughest soil . . . and faster, too!



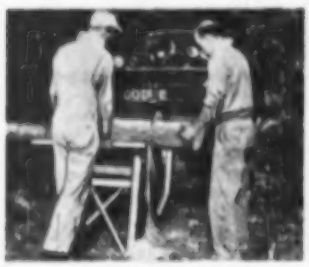
4 Disc harrows, plows, and other 3-point hitch implements can be operated, transported, backed into field corners, and turned sharply . . . from inside the cab.

5 For eradicating weeds in row crops, such as corn, cotton, tobacco . . . a Power-Wagon with rotary hoe is hard to beat!



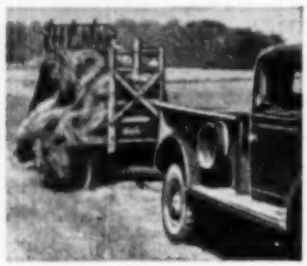
6 You can drill fence post holes at the rate of one a minute. Fence posts can be carried in the big express body.

7 The Power-Wagon's powerful winch enables you to stretch fence easily and quickly, even when travel in fields is necessary.



8 The Power-Wagon supplies ample power for all farm sawing, including timber. There's abundant space for carrying wood.

9 Ensilage cutting . . . and other types of equipment . . . can be operated by a belt from the power take-off of the Power-Wagon.



10 The great traction and pulling power of 4-wheel drive enables you to haul heavily loaded trailers, even over rough fields.

Because the Power-Wagon *goes* where other trucks can't go, and *does* what other trucks can't do, many well-satisfied farmers consider it their No. 1 item of farm equipment. Let your Dodge dealer explain how this vehicle can show *you* the way to profitable farming.

THE DODGE 4-wheel-drive POWER-WAGON "Job-Rated" for the farm

Opinions, Brickbats, Bouquets

Lost Horse Sense (?)

HOARD'S DAIRYMAN:—I hope you won't think me too presuming but as a person interested in the dairy business and cattle from start to finish, I would like to view some of my convictions. First, why should those idiots in Washington spend over $10,000,000 to hold up the price of butter and then take the tax off of oleo to make it cheaper — and, at the same time, work for livestock and soil conservation, then tear it to pieces to give row crops the right-of-way? I can't see any sense in that.

Also, why should the taxpayers foot a $65,000,000 debt to pay a few potato growers up in Maine to dump good potatoes and then spend I don't know how much more to kill the stench? They could have given those potatoes to the northeastern dairymen for feed and saved all that waste. As far back as forty years ago I worked on an ordinary farm in central New York and the owner figured a peck of potatoes was equal to a feed of silage. Our cows gained in milk production when we switched over.

What is the matter with our farmers? Have they lost all the common horse sense they were endowed with? Or, are they willing to sit back and take a handout which I am afraid may end up in something worse than what is behind the Iron Curtain?

Have we such a high standard of living when, as I understand from different articles I have read, about one-third of our population is undernourished at the present time?

I hope you don't think I am crazy, or worse, but look at it from a hard-headed business standpoint.

Where do we go from here?

Illinois. JACK GILBERT.

Mark Keeney

HOARD'S DAIRYMAN: — Have read your great paper for fifty years. Note in a recent issue, with much regret, the death of a friend, Mark H. Keeney. Mark's first job, after leaving Penn State, was as tester in our local testing association which is in Mercer County and was among the first testing associations in Pennsylvania. Mark and I traveled quite a lot by horse and buggy. Being of the same age, we had many things in common. He stayed with us while testing in our community.

Mark Keeney — a wonderful boy, a more wonderful man. May his work live on.

Pennsylvania. VERNE ENTERLINE.

Contribution for Butter

HOARD'S DAIRYMAN:—I am enclosing a check for $1.00 to be used to the best advantage possible in preserving the right of butter to be identified by its golden yellow color.

Virginia. F. W. BRUGH.

All funds submitted are being forwarded to the National Cooperative Milk Producers Federation, the hard working group that has led the fight in defense of America's dairy farmers.—Ed.

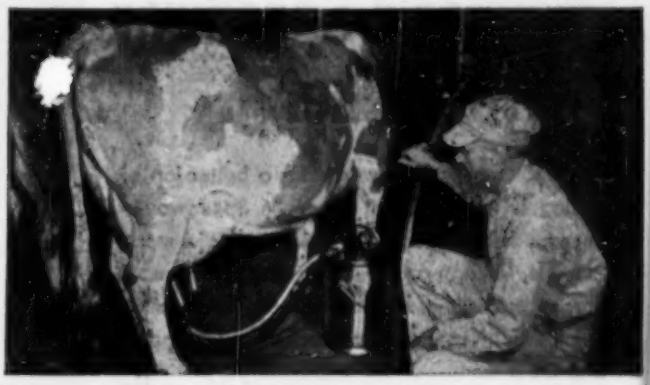
"I've used three other makes...none compare with my *McCormick Milkers*"

says R. J. Lesley, Indian Trail, N.C.

"It took some convincing to get me to install McCormick milkers. I had been using other well-known makes on large dairy farms for 25 years. *I'm convinced now*—that the McCormick is the smoothest-operating, cleanest-milking outfit I ever handled. It always gets all the milk without hand stripping, and is easier to handle in the barn. Easiest to clean of the whole bunch, too."

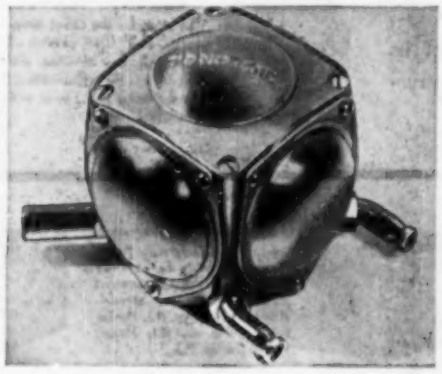
Mr. Lesley is shown alongside his International "ice-bank" milk cooler. He has operated dairy farms with as many as 135 producing cows, in North and South Carolina, and is now successfully managing his own herd at Indian Trail.

Protect productive udders. Heavy teat cups weigh 14 ounces apiece. Each acts separately to exert the right down-pull on its own teat, even on odd-shaped quarters. Folds are gently straightened out, and milk flows fast and free from start to finish. No rough tugging strains on delicate tissues. Inflations, too, help prolong your cows' productive life. They are creep-proof, soft, and comfortable.

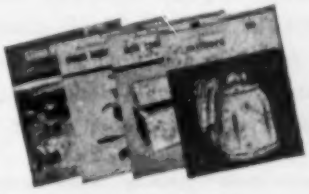


No two cows milk out alike. Some are harder to milk—some easier. For fast, productive milking over the entire lactation period, vacuum must vary to suit each cow. The milk-flow itself regulates the vacuum on McCormick milkers. The size of the transparent milk hose was determined by careful experiments, so that it lowers vacuum on easy-to-milk cows, raises it safely on hard-to-milk cows.

"Easiest to clean of them all," says Mr. Lesley. Here's why. All metal parts that touch milk are rust-proof stainless steel. Every surface is smooth and seamless, every corner rounded. No hard-to-reach places.



Dependable, all-weather pulsator gives you accurate, even pulsation in heat, damp, or cold, because it's controlled *only* by vacuum. It is safe and dependable. No oil to contaminate milk, or stiffen in the cold and gum up parts. No springs to vary with temperature.



FREE BOOKLETS for you

The full story of what McCormick milkers and cream separators and International milk coolers can do for you . . . and other useful information for dairymen . . . is in these four booklets. Check the booklets you want and send the coupon today for your free copies.

International Harvester Company
P. O. Box 7333, Dept. HD, Chicago 80, Illinois

Gentlemen: Please send me, without cost, the booklets checked below:

- ☐ McCormick Milkers
- ☐ McCormick Cream Separators
- ☐ International Milk Coolers
- ☐ Clean Milk from Healthy Cows (tells about profitable dairy herd management from A to Z)

I milk _____ cows.

Name _____

Address _____

Post Office _____ State _____

My IH Dealer is _____

INTERNATIONAL HARVESTER

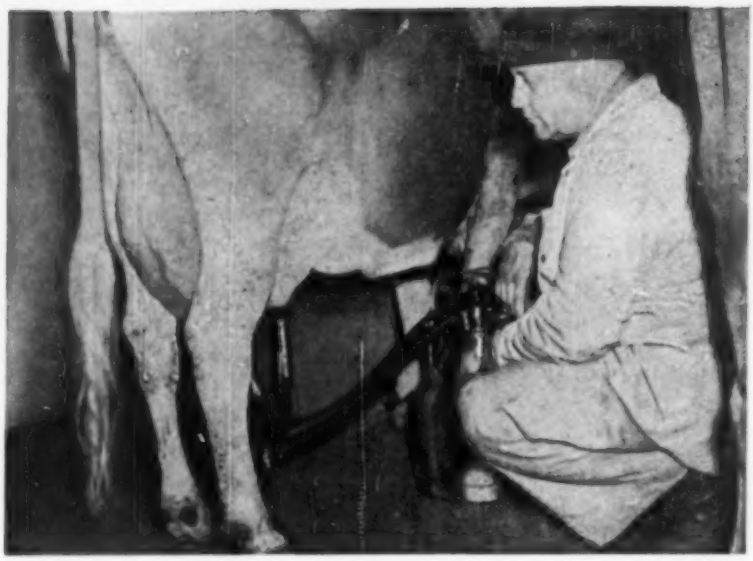
See your IH dealer for IH 5-STAR SERVICE for all your farm machines . . . the year around!

5-STAR SERVICE

Easiest

TO OPERATE TO CLEAN TO MAINTAIN

The New De Laval Magnetic Speedway Milker



The easiest milker to operate for a better job of milking is the De Laval Magnetic Speedway—because there are no harness or other adjustments to make. Uniform pulsations . . . correct vacuum . . . proper positioning of teat cups on teats are all automatically controlled regardless of who operates the milker.

It is easiest to clean because of the unit's all-stainless steel construction . . . large-mouthed pail . . . "straight-through" milk claw with removable bottom . . . easily assembled and disassembled "Full-Flo" teat cup with one-piece liner.

And it is easiest to maintain because of its simple, dependable design . . . rugged construction . . . and long-wearing parts.

Uniform, Magnetic Pulsation Control

The exclusive De Laval Magnetic "heart" which controls all pulsations for absolute uniformity has no adjustments . . . cannot vary. High, even milk production results.

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The new De Laval "Full-Flo" Teat Cup with one-piece liner is easiest to assemble and disassemble. Maintains proper position on teat . . . cannot creep or crawl.

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HOARD'S DAIRYMAN

Parity and The Dairyman

By Gerald Quackenbush

Is it possible to legislate ourselves into permanent prosperity? Here are some of the problems involved.

Why isn't the government supporting manufactured milk prices at 100 per cent of parity instead of 79 per cent?

Will our price support program raise farm incomes high enough so the farmer has an income as high as his city cousin?

Is our farm program doing what we really want it to do?

Some folks claim the taxpayer is getting tired of digging up billions of dollars each year to aid agriculture, while billions of dollars worth of surplus farm products are piling up. Is our farm program headed for a crack-up?

OUR present government price support program has one primary objective—to raise farm incomes by raising farm prices. This article will: (1) point out that the policy of raising farm incomes by raising farm prices can get us into a lot of trouble; (2) point out that present policy does not attack the real causes of the farm problem; (3) propose some constructive methods for solving the farm problem; and (4) show that dairy farmers will get high and stable incomes only when we have high and stable incomes in agriculture in general.

Our present farm program works something like this. We use all the money we can get to support farm prices. This money comes from taxpayers and if it is not politically wise to tax, the government borrows the money from them. With this money the government tries to take enough farm products off the market to peg prices "where they ought to be." Prices seldom are pegged as high as they "ought to be" from the farmer's standpoint. But the process of taking farm products off the market does raise prices, and therefore farm incomes, at least temporarily.

"High Price" Policy is Faulty

Our present policy is an attempt, year after year, to raise farm income by raising farm prices. Higher prices have become our goal. But our pricing system was never intended to be a goal. It was to be a method by which consumers could tell the farmer what products they wanted and what they would pay for certain amounts of each product. Then the farmer could tell whether to produce more of one product and less of another, and how far he should go in increasing his costs to produce more products. These are the most important things our pricing system is good for. There are many deep problems in trying to get high incomes through high prices in agriculture. Let's consider a few of the real trouble makers.

First, **the level of prices has little effect on the income of about half of the nation's farm families. They sell such a small amount of farm** products that even "sky-high" prices wouldn't help much. About 50 per cent of our farmers sell only about 10 per cent of the farm products that go to market. High prices won't solve their problem. High prices merely help the half which sells 90 per cent of the farm products. Most of these folks already have fairly good incomes.

Second, high prices are the message to the farmer to produce more and more farm products. He should use a few more sacks of fertilizer, plow up a few more acres of land, and add another cow or two. He takes on these extra costs. But these artificially high prices are not kidding anyone. The farmer knows that the extra corn he grows will go under government seal, and the extra butter he produces will be piled up in the warehouse under government ownership. Unless we have another war, the grain bins and warehouses eventually will burst, like they did for the old Farm Board. Then farmers' costs and the prices consumers are willing to pay will be still further apart.

Third, you can't keep "government prices" from being kicked around like a political football. Shouldn't we expect that the ones who yell the loudest will get the most? Shouldn't we expect one farm group to try to outdo the other? Then prices often tell the farmer to produce one product when he really ought to be producing another. How does each farm group determine how high prices "ought to be"? With few exceptions, the objective is to get prices at least a little higher than they would be without price supports. "Parity" used to be the goal. More and more it is becoming the "excuse." In November, 1949, oranges were 37 per cent of parity, corn 66 per cent of parity, milk 100 per cent of parity, and beef cattle 148 per cent of parity. The parity concept has lost much of its value as a guide. (It was the intent in the Agricultural Act of 1949 to change some of these disparities.) But many of our farm groups are using parity as an excuse to get prices just a little higher than they would be. Another way to put it is that those people who are in on the politics for each commodity try to get just as much for their own constituents as they can get from funds the Secretary of Agriculture has available for price supports. Some groups are very successful, while others fail.

Fourth, high prices tell the consumer not to buy as much or to buy something else. The consumer will be thinking of this as the price of butter is supported at 2½ times the price of margarine when the normal relationship is 2 times.

Parity Is A High Goal

The parity concept has things pretty well "balled up" within agriculture. Is it doing better between agriculture and industry? Should farmers expect 100 per cent of parity in the future for the average of all farm products? It is this writer's opinion that, without war, farm product prices in the next 20 years would average somewhere in the vicinity of 80 to 85 per cent of parity without price supports. Dairy products and meat animals, in general, would be higher, and wheat and feed grains would be lower, calculating parity as we have been, with 1910-14 as the base. If this were the case, a goal of 100 per cent of parity would be pretty high. In fact it would be so high that taxpayers wouldn't foot the bill. It would cost many billions of dollars to raise all farm prices by 25 per cent year after year.

Present Program Could Collapse

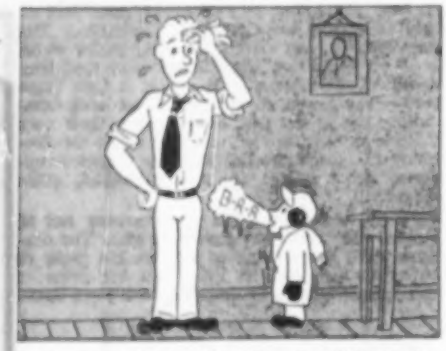
We can't get 100 per cent of parity, but let's suppose we continue as at present in getting prices just as high as we can. How are we going to do it? The whole farm program will collapse in a few years if we *(Turn to page 94)*

The author is an agricultural economist specializing in dairy problems, Michigan State College.

WHAT HE NEEDS IS A SHOTGUN — LOADED WITH LOW COST PRODUCTION!

CLUE TO UNEVEN HEATING

If your home heating system fails to distribute heat evenly, the trouble may be traced to the location of the thermostat. That uncomfortable chilly feeling around the house frequently comes



from uneven heat rather than too little heat—for example, when the air is hot around the ceiling but cold around the floor.

U. S. Department of Agriculture engineers point out that the ideal place for the thermostat which controls the heat is on an inside wall in a part of the house where an even temperature can be maintained. Other rooms will not be heated comfortably when the thermostat is placed so that it is warmed by sunlight, a fireplace fire, or heat from radiator or register. Cool drafts on the thermostat near a stairway or doors which are frequently opened will mean overheating in other parts of the house.

In homes with small children, the thermostat should be placed lower on the wall than in a household of adults. A location about two feet above the floor will assure a more comfortable temperature at the child's level.

GUARD AGAINST UNDULANT FEVER

One of the common causes of undulant fever in humans is through mishandling infected sows at farrowing time. With the farrowing season almost at hand in most areas, it is well to remind hog raisers of the danger of contracting this disease unless special precautions are taken.

Unless your swine have been tested and found to be free from brucellosis, don't take a chance on getting the infection. A University of Illinois veterinarian says one way of helping to prevent undulant fever is to have a pail of warm, soapy water handy while you're handling newborn pigs. Wash your hands from time to time. Then when the job is done, use a good disinfectant to destroy any germs that may be on your skin.

But the best protection is to make sure your swine are free from disease. Have them tested. If brucellosis is present, ask your veterinarian to help you plan a control program. In this way you'll protect your health as well as the health of your swine.

BE GENEROUS WITH BEDDING

Too little bedding for dairy cows has been found to be one of the big contributing factors causing mastitis, brought on by the chilling of udders when cows are forced to lie on cold, damp cement. When too little bedding is used, it becomes wet and this in turn may cause chapped teats; and dirty bedding provides a place for mastitis-causing bacteria to grow.

Another reason for using plenty of bedding is that cows well bedded stay cleaner and produce higher quality milk.

While chopped or baled oat straw makes the best bedding, poor quality hay and shredded cornstalks are also recommended. Wood shavings make good bedding for stanchions but are usually not recommended for loafing sheds.

To help control dust and keep the barn dry, dairymen will find the use of lime or superphosphate along with the bedding of considerable help. Also, the addition of lime or superphosphates adds to the value of the manure when used as fertilizer.

Maternity pens, calf pens, and bull pens should be bedded in the same manner.

Reprints Now Available

Reprints of all five classes in the 20th Annual Hoard's Dairyman Cow Judging Contest are now available and may be obtained by writing to Contest Department, Hoard's Dairyman, Fort Atkinson, Wis.

The Guernsey class may be found on page 110 of this issue, so there are just two classes left to appear, the Brown Swiss and Holsteins. Remember, closing date is March 18, so it would be a good idea to place the first three classes now if you haven't already done so.

We want to remind you again that there is a separate division for family entries, so everyone may participate. High school groups, 4-H clubs, and college teams are urged to write for group entry blanks as there are special awards for the winners in those divisions.

DAIRY BARNS NEED VENTILATION

If the walls and ceiling of your dairy barn are wet, or if the barn has a steamy, smelly atmosphere, it is very probable that the barn is too humid. Such conditions in addition to drafts, chills, and sudden temperature changes that are found in tightly enclosed and unventilated dairy barns may be the cause of sickness and reduced milk production.

A New Jersey farm engineer, W. C. Krueger, suggests that 60 cubic feet of air be provided every minute for each 1,000-pound animal. This air should be brought into the barn so that it does not make a draft on the cows. While it is sometimes difficult to figure how to provide this amount of air, various ventilation experts and commercial manufacturing companies are equipped to design a ventilation system that would be adequate for most cases.

While vertical flues that extend above the barn roof ridge can be used as outtakes, electric fans are simpler to install and often less expensive. They can be controlled by thermostats, if necessary, to keep the temperature just right.

Sometimes it is necessary to provide insulation so that heat will not be lost through walls, ceiling, and windows when a stable full of animals is cooled too much by the amount of ventilation that is needed.

SOW TESTING BRINGS RESULTS

Nebraska animal husbandmen have proved that sow testing means more pork from fewer sows. It involves three simple practices that can be carried out by any farmer that raises hogs: (1) Ear-mark the pigs at farrowing time; (2) weigh the pigs when they are approximately 56 days old; (3) select replacement gilts from the best litters.

Hog men following the practice of sow testing have increased the number of pigs weaned from six to nine over several years. Experimental trials show that it costs just about as much to produce a litter of four weaned pigs as it does one of eight or nine. In areas where sow testing has been carried on for several years, weaning weights of litters have been increased from 275 lbs. to 440 lbs. Pigs that weigh the most at weaning time usually continue to gain faster and get to market faster.

It should be borne in mind, however, that sow testing alone will not insure economical hog production. Hog raisers must also practice proper feeding and sanitation for best results.

PIG BROODERS REDUCE LOSSES

One of the best ways of cutting costs of producing pork is by preventing early spring pig losses. Research shows that, on the average, 4 out of every 10 pigs farrowed never reach market.

Iowa State College engineers say that little pig losses may be reduced 50 per cent or more

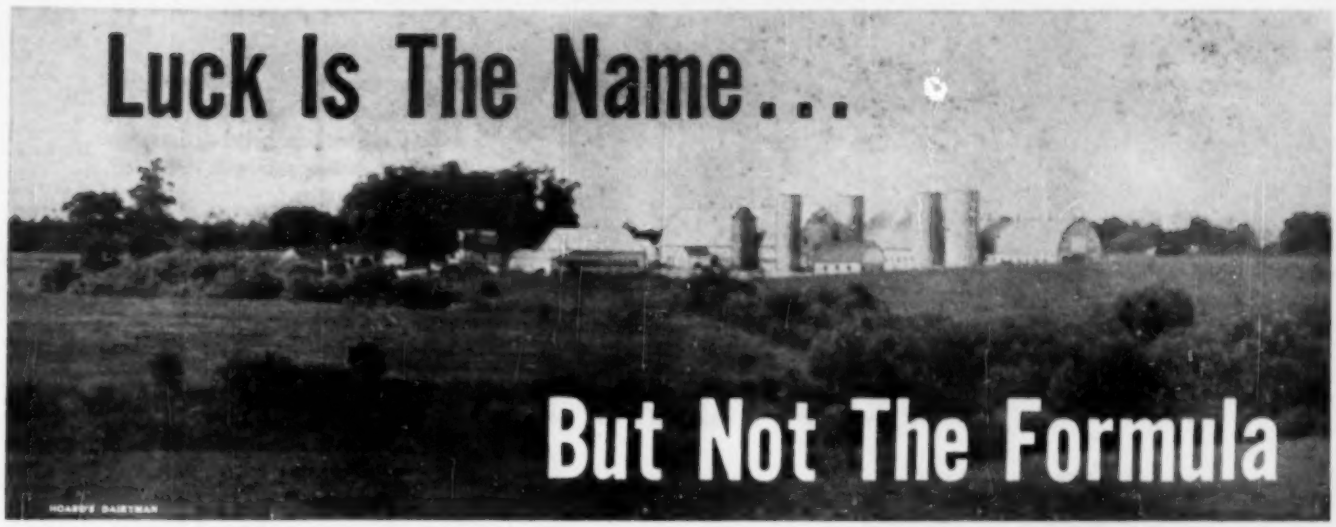
through the use of an electric brooder. Heat from the electric bulb reduces chilling, keeps the pigs from crowding, and reduces losses through crushing by the sow. Chilling, crowding, and crushing account for 40 per cent of the total pig losses.

This electric brooder can be built in the corner of any farrowing pen. It may be built permanently in the farrowing pen or may be made so it can be readily moved from one pen to another and removed when the house is to be used for fattening hogs.

As to cost of operation, brooders are inexpensive to operate. The heat is supplied by a 100 or 150 watt lamp. Under normal conditions, a brooder will use from 20 to 30 kilowatts during a 10-day operating period, which usually is the maximum time it is used for one litter. During warm parts of the day the brooder may be turned off.

A GARDEN full of weeds is like a man without deeds.—worthless.

Luck Is The Name...



But Not The Formula

One of the most successful dairy farms in Virginia is operated by two brothers who formed a partnership. Here's how they did it.

GOOD luck to you!—we hear that almost every day. In fact, it's used so much and so freely it's almost lost its meaning. It may go in one ear and out the other without making much of an impression. But when you get into the area of Ashland, Va., and mention the word luck, people automatically connect it with something. They connect it with the Luck Brothers—Beattie C. and Cabell.

The Luck Brothers' past is an example of a partnership effort which started from scratch and built up into a big dairy business. They were both born on a farm in Hanover County, Virginia. They stayed on the farm, too, and started a small herd of dairy cattle. First they built a 40-cow barn. Then they enlarged it into a 60-cow barn. Still later they enlarged it further to an 84-cow capacity. That was about as far as they could go in expanding that one barn so they built another—large enough for 40 cows. Even that was outgrown so it, too, was enlarged to a size capable of holding 60 cows.

Sounds almost like one big jump from a few cows to a huge herd and large barns, doesn't it? Sounds like the name of Luck has some magic charm in it. The Luck Brothers, Beattie and Cabell, will tell you it doesn't. Like any other dairymen who have built up a herd and a farm from a small start—they'll tell you that it took hard work, and lots of it, before they could show any large amount of progress.

Two Separate Herds

Today the Luck Brothers have a total of 270 cattle. This includes two separate herds—one consisting of 190 purebred Holsteins and the other of 80 head of purebred Guernseys. Only 10 of these cows have been bought, however, which reveals that it has been a long process to develop a herd of the size they now have.

As the herd grew and milk production ran into a great quantity, the Luck brothers expanded further—into the retail field. Now Beattie Luck is in charge of the milk plant and ice cream parlor that channels some 850 gallons of milk from the farm each day into the homes of consumers.

As you look through the barns on the farm at the long lines of cattle, you can't help but be impressed. But then you wonder, how do they feed so many—where does the feed all come from? You can find the answer by walking outside the barn and looking around at the surrounding fields. You can see at the first glance that those fields have had and are still getting their share of attention from Cabell Luck. However, another glance will show that a maximum output from the farm has not been reached—or that all the land is at its best. But it's getting better. Just over the first pasture you can see several acres of rough land being cleared with a bulldozer. It's fairly level land and won't suffer much from erosion after it's cleared. In fact, most of the 376 acres in the farm and the additional 150 acres that the Luck Brothers rent, is level enough so that there is little worry about soil erosion.

Generous With Fertilizers

Cabell Luck says he puts in about 125 acres of corn each year, most of which goes into the silo. There is enough silo room for about 1,500 tons of silage. About 75 acres of the corn land last year was seeded in oats and Austin winter peas. After the corn was taken off in August and September, the peas were seeded in October and November. This crop was cut off last year around the last of April and put into the silo and the land was planted back in corn again. This same rotation is used year after year. It's pretty heavy cropping, Cabell Luck says, but he puts enough manure and commercial fertilizers on it to keep the soil in productive condition. The land is top-dressed with manure each year. When the corn is planted, 600 pounds per acre of 2-12-12 is put in. In addition, the corn is side-dressed with 200 pounds of nitrate of soda per acre.

The oats and cowpeas also get an application of 300 pounds of 2-12-12 when they are seeded. They are seeded at the rate of 2½ bushels per acre of a mixture of one-fourth peas and three-fourths oats. The land is plowed 8 or 9 inches deep before the corn is planted in the spring and is disked heavily after the corn is off in preparation for the seeding of peas and oats.

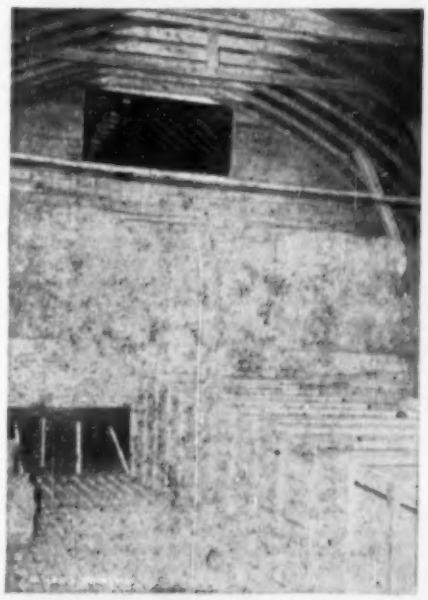
Hay is Baled and Dried

This year there were 80 acres of alfalfa on the farm. About 5 cuttings are taken off each summer, and a field will last on the average of 6 to 7 years. All hay on the farm is baled in the field and placed over a dryer in the huge barn loft. The loft is divided in the center by a partition. At the bottom of this partition, which is about 6 feet wide between two partition walls, are two blower-units for the hay dryers. The large center duct is 4 feet square at the center, and tapers down to a foot at each end of the barn. On both sides of the center duct the floor is slatted with 1x4 inch lumber.

The motor and blower unit in the center of the loft can be used for either of the two ends of the loft by merely turning it around and stationing it in front of the duct where the air is to be blown. Of course, this means that hay in only half the loft can be cured at one time. Usually it takes from 5 days to 2 weeks to cure hay with the dryer—depending on how wet and green it is.

Cabell Luck puts a lot of thought and effort into the management of the land, in order not only to make it produce what the herd needs, but to keep it producing year after year. He is planning now to seed 200 acres of the farm in ladino clover, orchard grass, white dutch clover, bluegrass, and other clovers for pasture. This acreage will be divided up and the individual fields will be rotated in the grazing program. Each pasture will include a spring-fed pond and shade for the cattle. Pastures are top-dressed each year with 300 to 400 *(Turn to page 101)*

Earl Smith, a farm helper, feeds a calf with a nipple bucket while Dallas Watson, a hired man's son, watches.



Hay loft is partitioned by center wall; large duct in center and slatted floor on left for drying loose hay.

Cows on a meadow crop pasture of timothy, alfalfa, and ladino clover. Five-year-old 600-lb. 2x cow in foreground at the right.

A combination of meadow crop and improved bluegrass pasture makes all-season grazing possible if sound management is practiced.

By Floyd S. Barlow

Better Ohio Pastures

One of Joe Weaver's 517-lb. cows in a bluegrass and clover pasture before clipping. Note strip farming in background.

Forage crop harvester. Taking some of the first crop from a legume-meadow mixture for the silo.

Meadow crop pasture of alfalfa, bromegrass, ladino. Too advanced for best pasture. 440-lb. 2x cow grazing (1947).

Article 2

IN 1936 a dairy pasture research farm was established at the Ohio Experiment Station, Wooster, in Wayne County. The project is a cooperative one of the dairy, agronomy, and animal industry departments of the station. The results already secured at this farm in the short span of years have received widespread interest by the dairymen as well as other livestock interests of the state.

These experiments constitute another of the many illustrations of the practical work being done at the station for the benefit of farmers. A dairyman reading the objects of this experiment is sure to think, "If those questions can be solved, we will make money on milk production." Well, they have been solved. A detailed study of the objects and accomplishments, as outlined to us by Charles F. Monroe, associate chairman of the dairy department at the station, will give any dairyman ideas that can profitably be incorporated in the management of his own herd.

The dairy farmer's first step, according to Monroe, must be to accept the premise that a combination of meadow crop and improved bluegrass pasture make possible an all-season grazing program. From there on the problem is entirely one of liming, fertilization, seed mixture, care, and maintenance of pastures once they are established. The wise operator will begin by emulating the very best practices within his county or at his experiment station.

Mr. Behm Did It — So Can You

The findings of the pasture farm are so basically fundamental to dairymen that the Ohio Guernsey Breeders' Association secures Mr. Monroe for a series of local association meetings every winter to tell about them. R. D. Dodd, extension specialist in agronomy, has been preaching the gospel of improved pastures for years.

After one of our meetings in Jackson County, Professor Dodd went with us to the pasture of C. L. Behm who said, "Even though this pasture is large, it doesn't produce enough for the cows. I rent another about the same size."

Professor Dodd answered, "If you will do as I tell you, this pasture will produce more than enough for your cows and you will not have to rent pasture."

Mr. Behm, a 70-year-old retired blacksmith, looked at the professor in astonishment and said, "You say you can tell me how to produce better grass and double the yield if I do as you say."

"That is what I said and, furthermore, it won't take more than two years."

Two years later, when we visited Mr. Behm, he said, "Come on out, I want to show you that pasture." The lime and fertilizer had brought on the bluegrass and clover, and the field was much greener. As we looked at it, he said, "I'm sorry I hadn't learned to do this 10 years ago. I seeded an oat field this spring with a legume-meadow mixture so I can have that additional pasture."

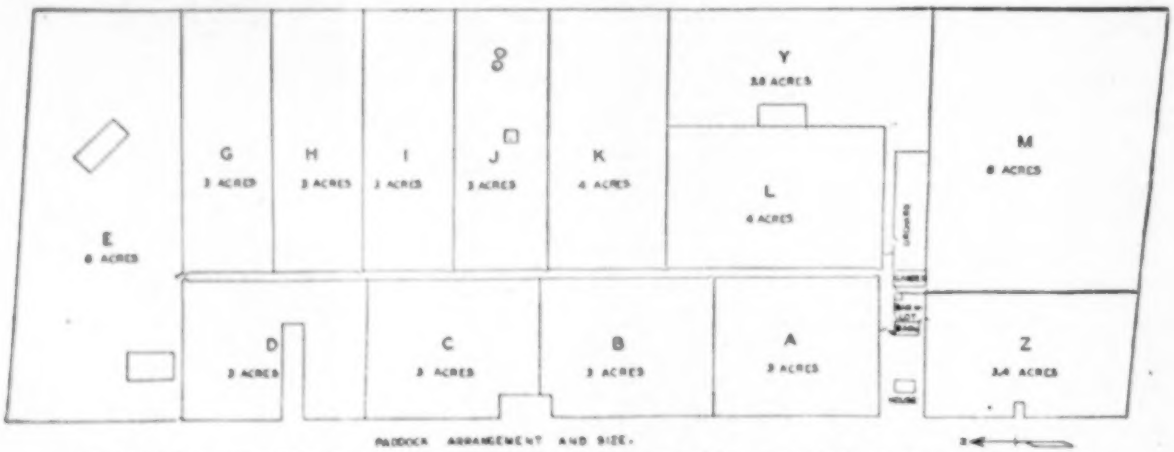
Objects of the Experiment

The reasons why the pasture farm was established were clearly stated to us, as follows:

To determine what practical measures can be taken to increase the length of the pasture season, (a) in the early spring; and (b) in the fall without damage to the pasture. To determine what practices of pasture management are most likely to solve the midsummer pasture shortage. To compare different kinds of pasture grasses and legumes as to palatability, nutritive value, carrying capacity and adaptability to seasonal requirements. To determine if it is profitable to improve pasture land by liming and fertilizing.

The Armstrong Farm

The farm for these experiments, leased in 1935 and later purchased, was then known as the Armstrong farm. It consisted of 60 acres, complete with buildings. It had been overcropped and little or no lime and fertilizer had been used. It was so run-down that in the first year of the station's possession the yield of wheat was but 12 bushels to the acre. The 32 acres of fertilized and limed wheat in 1936 averaged 30 bushels per acre. The increase in the yield of wheat practically paid for the lime and fertilizer. In addition, the stand of the *(Turn to page 92)*



PADDOCK ARRANGEMENT AND SIZE.

DAIRY PASTURE RESEARCH FARM 1949 . . . E, permanent pasture in two sections of four acres each; G-H-I-J, legume meadow mixtures in rotation; K-L, permanent pasture; Y, meadow fescue and birdsfoot trefoil; M, Kentucky 31, ladino, flower two acres museum, original run-out pasture; D, permanent pasture for heifers; C-Z, oats with very promising seeding; B-A, corn; orchard new bull and heifer lots.

Livestock Share Leases

By Earl O. Heady

Let the farm, not the community, be your guide in setting up the lease. Both landlord and tenant will enjoy mutual benefits.

This tenant is well satisfied with his arrangement that makes him owner of these two young calves.

HERE'S a situation with which you may be quite familiar. You maybe know someone in your community who has been dairying but is quitting this year. If you asked him why, maybe he told you something like this:

"There just isn't any money in it anymore. Too much work for what I get out of it. Couldn't make a go with the landlord on any improvements."

He's going to stay on the same farm another year but he's selling his cows this winter. He will be raising more hogs next year and tearing up a lot of his alfalfa and permanent pasture to plant more corn and small grain.

What's the answer? Everybody isn't doing it. Let's go back and take a look at the lease he and his landlord have been using. It's probably not too different from the one used on the farm next to you, or from yours if you rent.

And now for a question or two. Would the lease permit you to make any money dairying? That is, does the rent take an unfair slice of the returns? Would it give you a chance to farm in "high gear"; that is, to make use of your management ability, your labor, machinery, etc., to the fullest and best use?

Is it a lease that would encourage dairying in the first place? Perhaps the buildings on the farm aren't the kind that are needed for the best job to be done. But could the landlord get his money back with interest on his investment if he put up better buildings? Is there any incentive for him to do it? And if you are a landlord, here's something else that will interest you —will the man on your farm find it to his advantage to maintain the level of fertility? Will he be interested in safeguarding your long-time investment in the farm? Certainly you want to encourage him to stay in livestock farming.

Make Lease Fit Conditions

The provisions of leases are probably as important as anything else in determining the efficiency of our American agriculture. But we too often overlook this. A certain type of lease becomes established in a community. It sticks even though conditions change which would mean that either the owner or the operator, or perhaps both, are losing to stay with the old lease. We cling to leases which encourage cash grain farming on farms which should often be producing milk or other livestock products.

Or, one type of lease — say a straight cash lease — is used year after year when perhaps a lease of another type would be more appropriate. After all, if we buy clothes to fit the man, the lease should be selected to fit all persons concerned and the farm as well, instead of being selected because others have used it for a long while.

We spoke of the place of father and son agreements in the "agricultural ladder" in a previous article. Another rental arrangement, the livestock-share lease, can be an important rung in that ladder on the way to the top. It might logically be the further development of a father-son partnership.

The livestock share lease is especially suitable for those tenants who wish to carry out some form of livestock farming but can't finance such an enterprise alone. It also provides an investment and management opportunity for a landowner who is interested in maintaining a livestock enterprise on his farm. It's a boon to the owner who retires from his farm but doesn't wish to dispose of his livestock. Starting out, the owner may have to furnish all the livestock and sell an interest to the operator. With a good herd of cattle the owner and tenant will both be better off than if a poorer herd had been brought onto the place.

Income is Split Evenly

There are numerous variations in livestock leasing. We can look at the provisions of one form where the owner provides the farm and bears the expenses related to its upkeep and pays the real estate taxes. The tenant operates the farm, furnishing the power and machinery, standing the costs of repairs on machinery and the like. Both share the expense of such things as tractor fuel, seed, feed, veterinary fees, custom work and the like and the taxes on property jointly owned. Most important, of course, each has an interest in the livestock (generally half, although it need not be). The farm income is divided equally, or in some fixed proportion between them. The owner and the operator generally split the income from the farm as a whole instead of considering the returns to the individual enterprises. The poultry business, however, is sometimes treated separately. In addition, the man on the farm is often given milk and meat for family use.

The livestock-share system has certain advantages over other leasing systems. But the lease in itself doesn't assure harmony and mutual understanding. On the contrary, it probably demands better landlord-tenant relations than most leases. Once the lease is in effect, both the owner and the operator have a stake in the success of the business. This mutual interest is one of the strong points of the lease.

The livestock enterprise is one which requires long time improvements on a farm. It may be necessary to use lime to get better legume stands. Pasture improvement may be necessary also. Fences, sheds, water tanks, hog and poultry houses, stanchions, and hay storage space may all be needed. These investments would present little or no problem on an owner-operated farm. The operator would make them whenever they promised to be his best investment opportunity. The fruits of the investment would be his. Improvements such as these present several problems on rented farms. First the tenant cannot afford to make them if they represent a large and long-time investment. Unless the landlord is permitted to receive his fair return on the investments, which our leasing customs often prevent, he cannot make them either.

Long-Time Improvements Possible

The livestock-share lease makes such investments possible. The costs and returns can be handled in such a way as to make the investments profitable to both. A man who lacks the necessary buildings and equipment for dairying will find that there is real money for him in such improvements and can well afford the payment of additional rent.

These things add up to one more thing. A successful operation of this sort means greater security and less uncertainty for both owner and operator. A man on such a farm will stay from one farming season through the next. He has an interest in the farm. Similarly, the farm owner's most important investment, the fertility level of his land, is safeguarded through the establishment of a farming system in which the operator has a real concern for long time productivity. Finally, the rural community benefits when its farms provide homes for more permanent residents who will take an interest and a part in the activities of its churches, schools, farm organizations, and other groups.

This is not to say that the livestock-share lease is without problems. As we pointed out above, it is much more demanding in its landlord-tenant relations than most lease forms. But if this problem can be overcome, the relation is probably one of the most satisfactory of leasing arrangements. The farm owner who takes an active and personal interest in his place and its management will find the lease to his liking. Such a lease will mean a larger income for the landlord as a result of the additional capital he must provide and his management contribution. Such a leasing system also permits those persons who possess exceptional management ability to use it more effectively. Thus, if such a person owns several farms the ability can be more fully used. This can often be an advantage to a younger or less experienced *(Turn to page 116)*

They know it — They show it —

FERTILIZED FORAGE *is better!*

If cows could talk, they'd insist on fertilized pasturage. They know instinctively that fertilized forage tastes better.

Try this test: Fertilize a patch of pasture with Armour's Big Crop,* then watch the cows graze it *first* before other grass.

And your milkers show the difference when you fertilize pastures with Armour's. They hold their weight better through dry or cold weather, thanks to the higher quality, more nourishing grass.

Fertilize pastures now with Armour's, for best results on milkers and feeders. See your friendly Armour Agent soon. DON'T WAIT UNTIL IT'S TOO LATE!

Vertagreen Armour's complete, balanced plant food made especially for high-income crops.

Double-Strength More plant food units per bag at lower cost per unit with Big Crop high analysis double-strength fertilizers and Big Crop 45% SUPER-PHOSPHATE. Save on handling, transportation, storage.

*T. M. REG. U. S. PAT. OFF.

ARMOUR FERTILIZER WORKS

Drying Off the Dairy Cow

MELVIN SCHOLL

WHILE at first glance the process of drying off a cow would seem to be one of the simplest practiced by the dairyman, it is nevertheless one of the most important and one of the most abused. Knowing the correct manner of handling this common duty means a great deal toward retaining healthy udders and preparing cows for a profitable lactation.

Before discussing the three methods of drying off cows, let us say a word about feeding the cow during the drying off course. There has been a great deal said about the method of stopping the milk flow; but of the cow's ration during this time, very little has been written. Just as important as the way of drying off the dairy cow is the feeding of her at this time. We must bear in mind that the chief reason for giving our dairy cows a six weeks' or two months' dry period is in order that they can restore and rebuild their body reserves for maximum milk production.

It is easy to see, then, that if we starve the cow as is so often the case in trying to dry her off, we are defeating the very purpose of the rest period. In fact, we are not only depriving her of the nutrients she needs so badly at this time, but we are also draining her body of the small amount already stored away. Those who have not examined fetuses at different stages of gestation find it hard to believe that the unborn calf makes about two-thirds of its development during the last two or three months of pregnancy—or at the very time when we are tempted to take away from the cow the vital feed she needs not only for her fetus but for the restoration of her own body reserves as well!

Drying Off Heavy Producer

The cow that dries off by herself poses no problem; it is the persistent producer that concerns us. How to dry her off and at the same time not starve her to death is a challenge to the conscientious dairyman. Her diet will have to be changed. We want her dry as quickly as possible to insure her the necessary period of rest. It is very difficult to dry off a high producing cow while she is on pasture. Better take her off the grass diet and keep her inside in a comfortable stall, if possible, where she will have access to a small dry lot. Exercise should certainly not be neglected at this time. A light ration, consisting mostly of bran and oats, together with a small amount of beet pulp and a good quality of hay, should be fed. It is imperative for a healthy calving that the feces, or bowel movements, be carefully watched. Hence, the reason for a nutritious, laxative diet at this time.

Too many dairymen make the abrupt and dangerous change of taking a cow off pasture, locking her in a stanchion, and giving her nothing but the poorest quality of timothy hay; some even going so far as to limit her supply of water, foolishly believing it necessary in order to put her dry! She would have to be some cow if she failed to become impacted and go off feed, to say nothing of the calving troubles that would seem inevitable! Better to milk a cow straight through than resort to this system of handling a pregnant cow.

Next comes the method to adopt in milking the cow that is to be put dry. These are known to every dairyman: the incomplete milking, where only part of the milk is withdrawn; intermittent milking, where the cow is milked dry with increasing intervals between milkings; and the third method, complete cessation of milking. To those who are familiar with the process of milk secretion and who understand that secretion of milk by the alveolar cells is impossible when a certain pressure is reached in the udder—determined to a great extent by the capacity of the individual udder—then it is easy to see that the best method to follow in drying off a cow is the one where milking is stopped completely. The only rule to remember here is that this method is not wise in an udder or quarter that is infected with mastitis. One must know his cows thoroughly before deciding on any one way of drying off a cow; then use good judgment in following through.

Incomplete milking can never be advised. A good rule to remember always is to milk a cow dry at all times. Sound udders that are producing up to twenty and twenty-five pounds of milk a day can be safely put dry by simply stopping milking them. The cow is milked dry, the udder and teats washed and dried, the teats inserted in an open bottle of iodine and the bottle shaken in such a way that the liquid completely covers the end of the teat. When it has dried, collodion is applied in the same manner.

It is best to keep a cow in the barn where she can be carefully watched, since the worst trouble with this practice seems to be that the seals at the ends of the teats sometimes break. When this happens, the entire process should be repeated. Should any quarter of an udder prove unsound, it should be milked intermittently, while sound quarters in the same animal may be dried off abruptly.

Keep Up Winter Milk Production

Your dairy cows may never go on strike, but they'll give less milk if you neglect them during the winter months.

Dr. M. E. Mansfield, University of Illinois veterinarian, recently gave several good dairy management tips to help cows stay in top production no matter how bad the weather gets. The suggestions are:

Take good care of the cow's udder. If the udder becomes swollen and inflamed, or if a teat becomes badly injured, call your veterinarian. Prompt treatment often helps to prevent mastitis.

Protect her against barnyard filth by keeping the lots clean and well drained.

Let her exercise, but don't make her stand outside for hours in bad weather or freezing temperatures.

Give her a balanced ration with enough good quality legume hay.

Provide clean bedding in light, well ventilated quarters.

Finally, check her for lice, and treat her if necessary. Lice spread rapidly during cold weather, often causing unthriftiness.

When you park, get out of your vehicle on the curb side, not the traffic side. Why take chances?

Wins International Grand Championship 3rd Straight Year!

Ohio Farm Family Again Wins Top Award For Belgian Mare

George Harkness and 3-time champion mare, Victory. Like many farm and sports winners, Harkness is a Wheaties man. How about you? Getting YOUR Wheaties?

SANDUSKY, OHIO—Once again, George Harkness' horse Victory is Grand Champion Belgian mare at the International Live Stock exposition! This great mare has won international top honors for the past three years. She's also been Champion at National Belgian shows in 1947-48-49!

* * *

Horses aren't all the Harkness family raise. They also grow 400 acres of oats, corn, sugar beets, soy beans, tomatoes and wheat. That's 400 acres of hard work! Looks like they need lots of Wheaties. They get 'em, too—George eats Wheaties 6 times a week. He likes those nourishing flakes with milk and peaches.

"Joe! Let him *have* the Wheaties! We'll get more in town!"

Favorite hobby of whole Harkness family is showing draft horses. A hobby they can ride! Family also agrees on liking Wheaties. Wheaties are first choice for breakfast with *many* families. They're America's favorite whole wheat flakes—second-helping good!

For any active, hungry family, Wheaties are a mighty fine year-round cereal. Those 100% whole wheat flakes are really nourishing! A famous training dish, furnishing B vitamins, minerals, protein, food energy. Had YOUR Wheaties today? "Breakfast of Champions!"

Extra value with Wheaties. (1) Silverware coupons in Wheaties and other General Mills products. (2) 50% more than regular size in Wheaties' Extra-Big-Pak.

"Wheaties" and "Breakfast of Champions" are registered trade marks of **General Mills.**

Naming the Females

An unusually interesting and informative method of naming their registered Guernseys has been developed and used over the years by two Connecticut dairymen, William C. Child and his son-in-law, Henry D. Young, the latter now manager of their Valleyside Farm.

The name of each animal is made up of three words; the first "Valleyside" identifying the animal as having been bred on that farm, the second is the name of the dam of the animal, and the third is that of the individual herself.

The unusual and informative come about through the fact that the first letter in the names of all females is likewise the first letter in the distinguishing name of the sire. Thus all daughters of Grassland Edenquel are identified by a name beginning with the letter "E" . . . Ella, Emma, Elsie, Eliza, Emp, Evelyn, etc.; the Grassland Beau Valentine daughters are Beaula, Belle, Beth, Bing, and Bette; in this case they had to use the "B" since an earlier bull, Prospect's Valentine, had been represented by the "V's". Dean of Valleyside is the sire of Dimple, Dentine, Dolly, Dido. The latest herd sire having any appreciable number of daughters in milk was Hilltop Butterfat Chief with Clema, Cupid, Cynthia, Cherry, Chella, and others.

Hence it is easy to place Valleyside Bell's Chella, a class leader in the Herd Improvement Register, as having been sired by Hilltop Butterfat Chief out of Bell, a daughter of Grassland Beau Valentine. Or, consider another class leader, Valleyside Edette's Chette; she, too, a daughter of Hilltop Butterfat Chief but her dam a daughter of Grassland Edenquel. The name reveals much as to ancestry.

Some farm owners when giving names to the animals of their breeding, place great emphasis on getting some word or letter into the name to identify the sire; other owners want to stress the maternal line. The system used at Valleyside has advantage of attaining both objectives.—W. A. Cook, Rhode Island.

Herd Books in India

To maintain records of breeding and production of the important cattle breeds, the Council of Agricultural Research in India has now opened Central Herd Books for Ongole, Kangayam, and Tharparkar breeds.

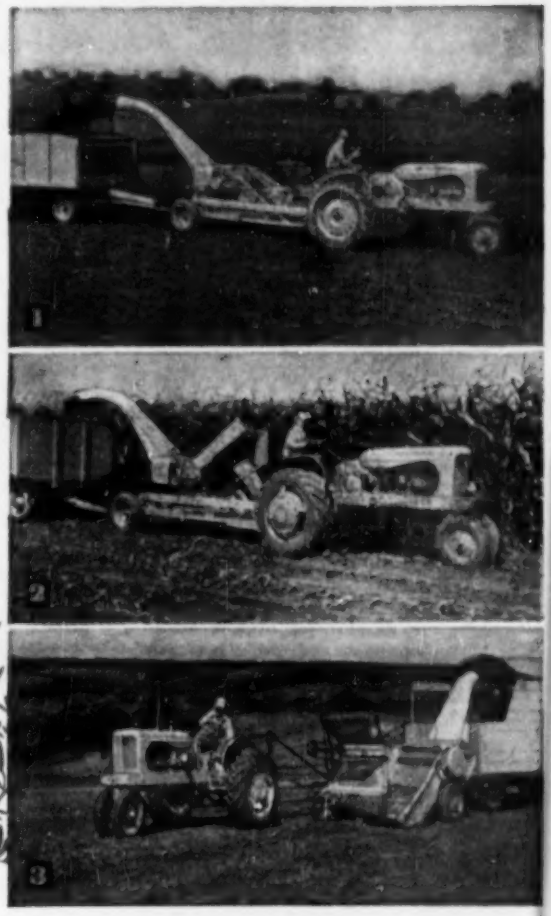
Purebred animals over six months in age, which satisfy the milk yield qualification, are eligible for entry in the Central Herd Books. The milk yield qualification for the various breeds are: 1,000 lbs. for Kangayam, 1,500 lbs. for Ongole and Kanrej, 2,000 lbs. for Gir and Tharparkar and Hariana, 2,500 lbs. for Sindhi, and 3,000 lbs. for Sahiwal and Murrah. The period of milk yield should be one lactation not exceeding 300 days in length.

McDOWELL WISCONSIN DIRECTOR OF AGRICULTURE

A former Wisconsin 4-H and FFA member, Donald N. McDowell, 33, has been appointed director of the Wisconsin Department of Agriculture, succeeding Milton H. Button, director of the Department for the past six years who resigned because of poor health. McDowell has been Chief of the Department's Administrative Division for nearly two years and taught vocational agriculture prior to that. His appointment became effective February 1.

GREEN HARVEST

gives you year 'round "pasture"



When the bloom is just right, when leaves are tender and protein is at its peak . . . you are set to go with your *own* Forage Harvester.

Make the best silage you ever fed, whatever the weather. Have the advantage of green feed the year 'round. Power handles the crop all the way. Heavy pitchfork labor is eliminated from start to finish. Even the spiral knives of the Forage Harvester's wide, easy-rolling cylinder are power-sharpened by a built-in sharpener.

The Allis-Chalmers power take-off Forage Harvester is actually three machines in one, priced for home ownership on the family farm. With three inexpensive attachments, it power harvests all forage crops, tall or short, green or dry:

1. Direct-cut attachment for grass silage, stubble, stalks.
2. Row-Crop attachment for corn, sorghums, tall crops.
3. Windrow pickup attachment for wilted or dry hay and straw.

More livestock feed nutrients can now come from soil-building grass and legume hayland . . . at far lower cost. Your own Forage Harvester can be the most important harvesting machine on the farm. And back of it will be the skilled and conscientious service of your Allis-Chalmers dealer.

The Forage Blower's long 11½-ft. conveyor lifts up for wagon to drive through. Special new curved fan blades throw chopped forage into highest silos or haymows. Matched to the big capacity of the Forage Harvester.

ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

FORAGE HARVESTER

CONTROL MASTITIS

SELECT THE PRODUCT

THAT BEST

SUITS

THE JOB

PENSTIX®

PENICILLIN BOUGIES

Small, self-lubricated, slim sticks that you simply slide into the teat. Effective in mastitis caused by Streptococcus agalactiae.

PENSTIX come in two strengths. 25,000 units; packed in 6's, 12's, and 25's. 100,000 units; packed in 6's for more severe infections. Sanitary wrapped. Keep anywhere—no refrigeration required.

PENSTIX®-SM

PENICILLIN-DIHYDROSTREPTOMYCIN BOUGIES

Penicillin plus Streptomycin

For the more complex infections caused by Streptococcus agalactiae and coliform bacteria. The same kind of safe, easy-to-use sticks as Penstix, but with double-barreled effectiveness. 25,000 units of penicillin and 25 mg. streptomycin. Packed in 6's and 12's.

PENICILLIN OINTMENT

VETERINARY

Full 75,000 unit dose in the new one-pinch tube with improved nozzle.

Consult your Veterinarian as you would your Physician

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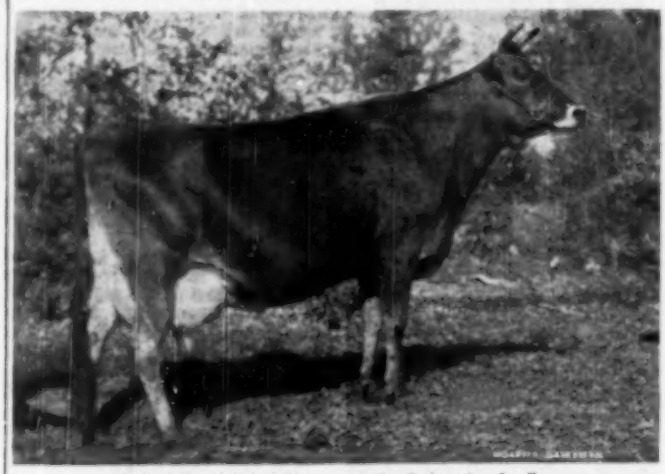
Jersey Butterfat Queen



Orrland Signal Vol. Sable, new national champion for lbs. of butterfat produced in one year, regardless of age.

THE Jersey breed has a new national champion for pounds butterfat produced in one year. A 4-year-old registered Jersey cow from Victory Jersey Farm, Texas, Orrland Signal Vol. Sable, has recently completed a record of 1,223 lbs. butterfat from 19,497 lbs. milk in 365 days on 3-times-daily milking.

This high mark breaks the previous record for all ages held for 15 years by Stockwell's April Pogis of H. P. that made 1,218 lbs. fat at 5 years, 11 months, owned by High Pastures, Vermont.

The new title holder, classified Very Good, also became the highest senior 4-year-old butterfat producer of the breed . . . previous record holder was Vive La France, owned by Pickard Bros., Oregon, that made 1,032 lbs. fat in 1919, thirty years ago.

Bred by Orrland Jersey Farm, Texas, the new title holder is a daughter of Welcome Volunteer Sable, an Excellent cow bred by Mrs. J. J. Smith, Texas, and last owned by Victory Farm. These two cows are the only dam-daughter pair of the breed each having records of over 1,100 lbs. fat. The dam produced 1,444 lbs. fat and 18,998 lbs. milk in 365 days at 5 years, 2 months. Sire of the new champion is Observer Blonde's Signal, bred by Shelby County Penal Farm, Tennessee, a Superior Sire with 20 tested daughters averaging 12,704 lbs. milk and 711 lbs. fat.

My Husband's Shirt

If I could be a farmer's wife,
  I know what I would do;
I'd lead a very happy life;
  I'd live a life anew.

Surprises every day I'd find,
  Most good, but others bad;
The bad would make me be more kind,
  The good would make me glad.

My housework I would set aside
  To be my husband's hired hand;
The tractor I would love to ride,
  I'd milk the cows to beat the band.

In summer sun or winter snow
  I'd rise up early in the morn
To shovel snow, to rake, or hoe,
  To feed the pigs, and husk the corn.

When baby calves would come to stay
  Their care would fall on me.
I'd feed them milk, oats, grain, and hay
  So happy we would be.

Now, if with me you don't agree,
  My feelings won't be hurt,
For I'm a farmer's wife and free,
  And wear my husband's shirt.

LILIAN GAYLORD.

the finest breeding is only half the job when it comes to raising the future producer.

Feeding together with good management are the other *important* factors and that's why generations of dairymen have used Blatchford's in their calf feeding program. Blatchford's Pellets promote sound, rapid, healthy development. And—they are so convenient and easy to feed—right from the bag.

For a new satisfaction in feeding calves, feed Blatchford's! Buy it from your feed dealer . . . today!

Write for a copy of Blatchford's Calf Manual—it's Free! Address Dept. F.

2324

the producer of tomorrow reflects today's feeding

LOOK TO THE LEADER

Blatchford's ESTABLISHED IN 1900 WAUKEGAN ILLINOIS

How to Make a Meeting a Failure

Like most persons connected with agriculture, you will undoubtedly plan and take part in several meetings this winter. Regardless of whether you are planning and carrying out the program or merely attending, you can still do a lot toward making it a failure.

For those concerned with planning the meeting, you may wish to consider several ideas, none of which should be left out. First of all plan the meeting without checking with other organizations. This will most always result in a direct conflict. No attempt should be made in getting a speaker or providing entertainment until the day or so before the meeting, nor should there be any publicity or notices sent out to individuals. If notices must be sent, wait long enough so they will reach people no earlier than the day of the meeting. Make the notices long and unattractive with the important parts at the very end. Do not mention the usual "What, Where, and When."

The meeting place should be difficult to get to for most of the group, too small and without chairs for at least half of the people. Make sure the place is underheated or overheated. If a lunch or meal is planned, make no arrangements for serving everyone; serve with a shortage of help and plan on being late. If you serve poorly prepared food, it will not matter if you are short.

Come late and then get someone off in a corner and talk loud about what a grand job of farming you are doing. If you must say something during the business session, talk a long time and so no one can hear. Criticize, but never constructively.

Do not plan the program but try to cover the whole field of agriculture. Save the main speaker until the audience is tired and restless and then introduce Professor Phlub.

Simply state that you do not know what the subject is but that he wants to talk to you.

Above all, make sure the meeting drags along and lasts until midnight. Interrupting the speakers, then asking difficult questions always goes over big with the group. Make no effort to cooperate with the chairman in closing the meeting or putting the meeting place back in order.

Don't you wish you had stayed home, too?—W. R. HESSELTINE, University of Connectict.

Resolve to Keep Records

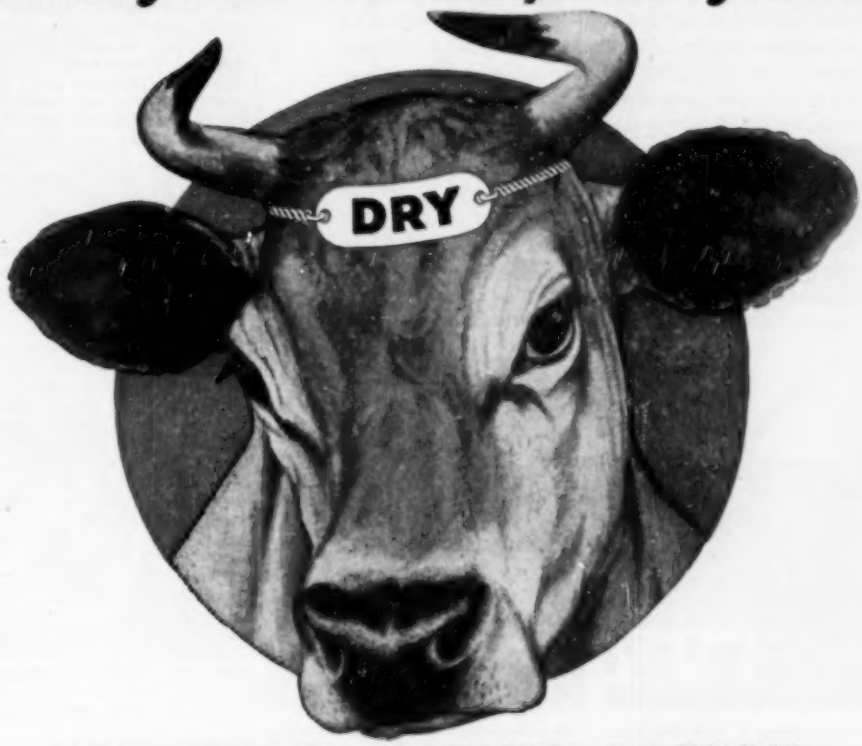
One of your most profitable New Year's resolutions is to keep complete, accurate farm records in 1950. This recommendation came from H. C. M. Case, head of agricultural economics work in the Illinois College of Agriculture.

Case says farm records are to the farmer what the rudder is to a ship. Farming is far more than plowing, planting, and harvesting crops and feeding them to livestock. Even large yields of crops and good livestock give the farmer no advantage if his business is not balanced to give a good margin of profit between costs and income.

The economist adds that good accounting is the nerve center of any sound business. Modern farming has grown into a business of large investments and heavy annual expenses. You have to follow business methods to make a success of farming. And that means good farm records.

BUILD UP DRY COWS

for strong calves... for heavy milking ahead!



FUL-O-PEP FITTING RATION

supplies a special Vitamin and Mineral Boost for calf building... easy calving... body condition!

YOUR dry cow is doing a big, *two-fold* job . . . 1. Building a calf . . . 2. Conditioning her body for her next lactation.

Unless you *feed her properly* when she's dry, she'll rob her own body of hard-to-replace nutrients to build her calf. Actually, she's robbing you of valuable milk later on!

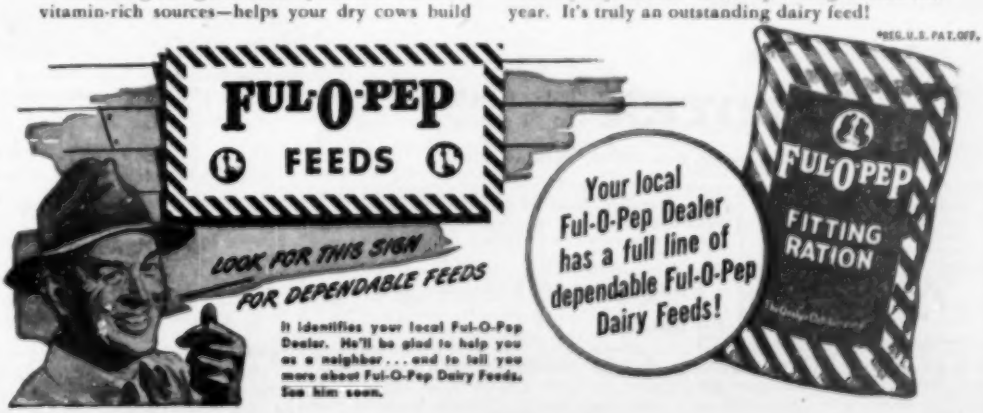
That's why so many modern dairymen now build up their dry cows with vitamin-rich Ful-O-Pep Fitting Ration. It's a specially-built *body-conditioning* ration...enriched with Concentrated Spring Range*. This special Vitamin Boost with many of the benefits of lush, green grass itself—plus other valuable vitamin-rich sources—helps your dry cows build big, strong calves . . . and builds up a reserve for their next milking periods!

What's more, Ful-O-Pep Fitting Ration contains a special mineral fortification . . . including essential trace minerals dry cows need. And cows find this *bulky, nutritious ration* very palatable and easy to digest.

However, you must feed Ful-O-Pep Fitting Ration to appreciate its special *calf-building*, health-promoting, *milk-producing* qualities. You'll find it outstanding for growing heifers . . . and for building up bulls for breeding, too!

So try *dependable* Ful-O-Pep Fitting Ration this year. It's truly an outstanding dairy feed!

*REG. U.S. PAT. OFF.



How to get more profits and better living out of your farm

Just about the best-paying investment you can make on the farm is to modernize your buildings. You'll be amazed at the difference that more efficient insulation for dairy barns, poultry houses and other farm buildings can make in production and profits. You'll be delighted to see how much more livable your home can be with a little remodeling. And with conditions still favorable, it's just smart business to take care of this important matter right now!

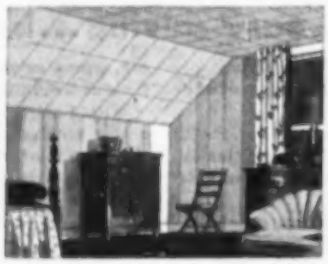
You can do a top job, *and save money too* – by using famous Celotex Building Products that perform several basic functions *at one low cost!* Stop in soon and let us prove how remodeling or building the thrifty Celotex way can make your farm more comfortable and more profitable. We'll be glad to discuss your complete building needs with you. No obligation, naturally!

Your helpful Celotex Dealer

Improve milk production by insulating dairy barns with sturdy Celotex Insulation Board. Makes possible better ventilation. Helps cows stay healthy, produce more by keeping barns warmer, drier in winter, cooler in summer.

Celotex Insulating Board can be quickly and easily applied in both old and new barns. On walls and ceilings it may be painted if desired, without reduction of heat-stopping qualities. Protected by the exclusive Ferox Process against dry rot and termites.

Beautify your home with Celotex Insulating Sidings. Go on quickly over old exteriors. Add extra insulation that cuts fuel bills. Never need painting. Attractive stone, brick, and shingle patterns in modern colors.



Turn unused space into extra rooms with Celotex Insulating Interior Finishes. Ideal for beautifying old rooms, too. Quick, easy to install, and inexpensive. Variety of stunning colors and textures.

Insist on Genuine

CELOTEX BUILDING PRODUCTS

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FREE! New Celotex booklet on how to insulate and modernize farm buildings for greater production and profits. Packed with practical, money-saving ideas. Check below for your copy.

☐ Send me free the new Celotex farm booklet.

And also send me free plans for

☐ 1-car garage ☐ 2-car garage

ALSO AVAILABLE—COMPLETE WORKING PLANS for modern, more efficient new farm buildings. Send $1.00 for each set of 17" x 22" plans you check below.

☐ Brooder House ☐ Milk House

☐ Laying House ☐ Tobacco Barn

☐ Dairy Barn (1-story, 20-cow)

NAME _____ ROUTE _____

POST OFFICE _____ COUNTY _____ STATE _____

New Holstein Milk Champion

GRANT SALISBURY

FOR-MAR farms, east of Flint, Michigan, is the home of one of the state's finest Holstein herds. The farm is owned by Forbes K. Merkley and from his first name and his wife's name, Martha, comes the name of the farm. A cow from this herd recently became the national champion milk producer in the yearly division, regardless of age, on three times daily milking. Her name is Minnow Creek Eden Repeat. Her total milk production as a senior four-year-old was 35,250 lbs. Her fat record was 1,230.2 lbs. with a 3.5% test, giving her the national record for this classification. She stands 13th in the list of 1,000-lb. fat cows recorded by the Holstein-Friesian Association of America. In Michigan she holds both the milk and fat records in the yearly division, regardless of age, on three-time milking.

In her first lactation, beginning at two years, two months, she produced 19,341 lbs. milk and 687.3 lbs. fat. During her second lactation she produced 27,851 lbs. milk and 906.3 lbs. fat without being dry between the first two lactations which made her national champion on 3x for both milk and fat.

Previous record for fat in "Repeat's" classification was held by another Michigan cow, Marquette Pride De Kol, owned by the Marquette State House of Correction and Branch Prison that made 1,152 lbs. butterfat in 1942. Holder of the previous milk record in this classification was Mechthilde Pontiac Segis Lady, owned by Pottenger Sanatorium, California. Her record was 32,092 lbs. milk, made 22 years ago.

"Repeat's" record is just a trifle higher than that of the Canadian milk champion, Ormico Reta Roberts, that made 35,207 pounds of milk as a 5-year-old.

Counting the routine tests required under Advanced Registry, the automatic retests and two 72-hour check tests, "Repeat" was on official test 25 days during the lactation and there were eight different supervisors employed.

"Repeat" being milked the last time on official test by Herdsman Gordon Scott, who milked and cared for the Canadian milk record holder, Ormico Reta Roberts, at Ontario Reformatory.

She is a full sister to Minnow Creek Eden Delight, National 2x Champion in 10 mos. division with 827.6 lbs. fat as a senior 4-year-old. Both cows were bred by Harry Rosenburg, Indiana.

Marr Sherman, official tester, Michigan State College, weighs last milking. Herdsman Scott checks scales; "Repeat" shows udder from which 35,250 lbs. milk flowed in 365 days.

★ ★ ★ ★

Teaching Calf to Drink

To the question, how can young calves be taught to drink milk, John A. Arey, in charge of dairy extension, North Carolina State College, believes this job is not difficult. He says:

"After separating the calf from his mother, leave him alone about 12 hours or until he gets hungry. The first milk offered should be warm milk fresh from the mother. Back the calf into a corner, straddle him, and place the bucket containing the milk directly in front of him. After dipping two fingers in the milk, place them in the calf's mouth. When he begins to suck, gradually lower the hand into the bucket of milk and spread the fingers so that milk will be drawn up between them as the calf sucks. After the calf gets several swallows of milk carefully remove the fingers from his mouth. Repeat this operation as often as may be necessary to teach the calf to drink."

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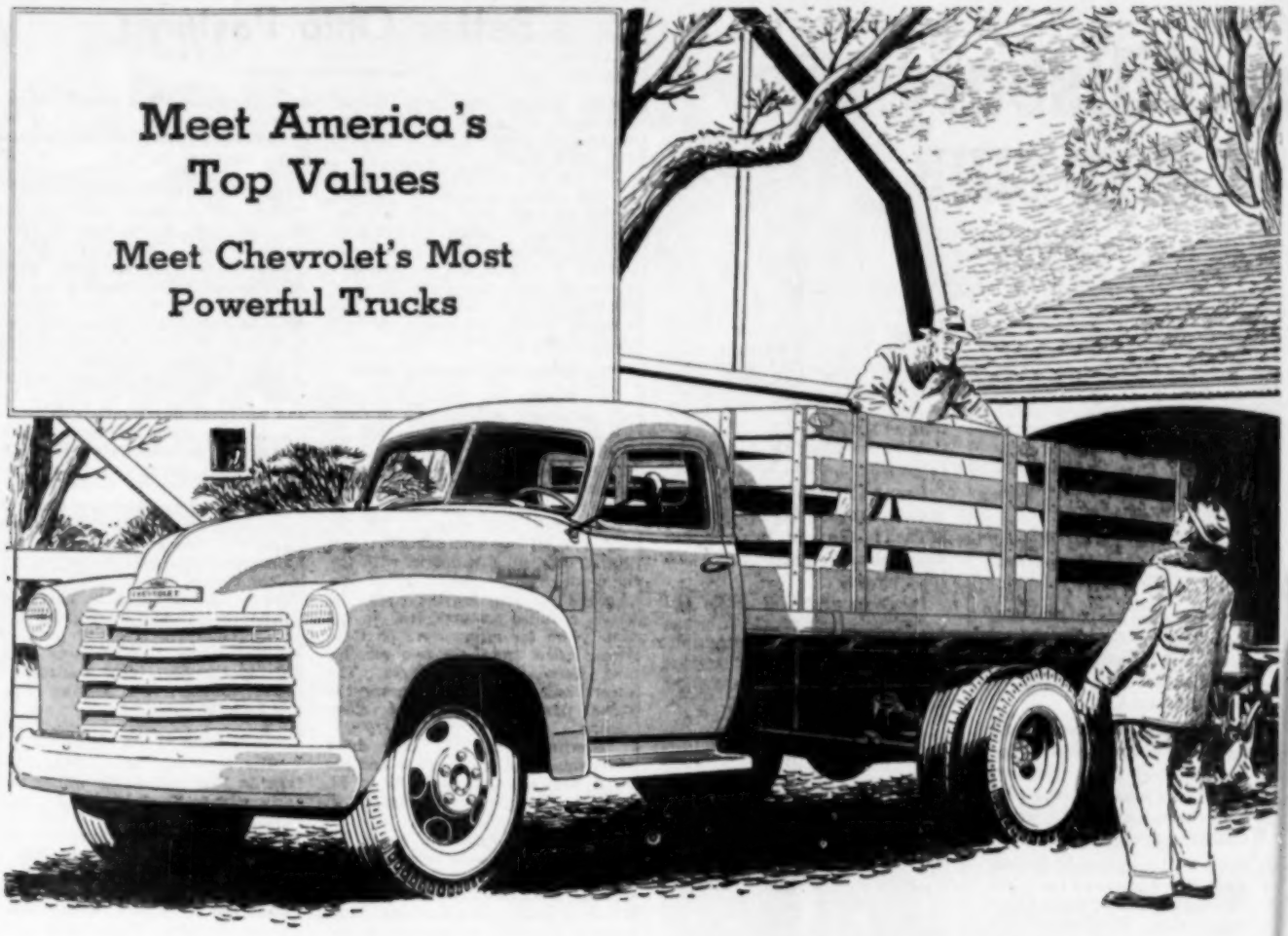

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The Pillsbury 4X FEED CLUB

By JOHN D. MARTIN

Many of you have asked, "What makes the difference between success and 'bad luck' in raising pigs and baby chicks?"

I set out to find the answer, asking farmers, flock owners, extension workers and many others in daily contact with farm and feeding problems. Replies vary in some details, but all agree on one point:

It is what you do NOW—at this time of the year—that pays off in the fall.

1. **Give sows the best of care and feed. Buy best-quality chicks from a reliable hatchery, where you know breeding flocks have been properly fed.**
2. **Scrub, clean, repair and check farrowing houses and brooder houses, and all equipment. Make sure those babies—pigs and chicks—are clean, comfortable, protected, pampered!**
3. **Feed for best possible growth and development—with Pillsbury's Best, if you'd like a suggestion. Pillsbury feeds for pigs and chicks are highly specialized products. They made great records in the past, and are improved and sharpened for 1950. APF concentrate has been added, plus a new mineral balance.**

Tips from Feeders

$25 to Mrs. C. D. Church, R. R. 1, North Baltimore, Ohio, for her suggestions:

"A horseshoe suspended by a wire over a water fount will keep the birds off the fount and help you keep the water clean . . . Save time by using a new coal bucket to fill the feeders with mash."

Congratulations, Schmidt Bros.!

Congratulations, also, to all other Pillsbury feeders for their fine showing at the International Livestock Show.

Schmidt Bros., of Delmar, Iowa, fed more than 400 Angus in 1949, starting them all on Pillsbury's Best Calf Starter, later switching to Pillsbury's Best Steer Concentrate as a part of the finishing ration. They entered six loads at the International, with these results:

Grand Champion Carlot of the show, Champion Angus load, first in each of the light, medium and heavy classes, a second and two third places.

Previously Schmidt cattle had consistently topped the Chicago market, three times setting new all-time highs. The grand champion load brought $65.25 at the show auction.

Once in 850,000 Times

Quadruplet calves are rare—estimated at once in 850,000 times—and it is rarer still for all four to live and grow like these lively youngsters. Another unusual thing about this group is that their mother, a grade Guernsey, delivered them at night, without any help. All were able to stand and suckle.

The owners, shown above with the calves, are Mr. and Mrs. Joseph DeGroot, Sr., R. R. 3, Jacksonville, Ill. They tell me the mother was on Pillsbury Dry and Freshener Feed, before calving, and they give a lot of credit to the prenatal feeding for the vigor of the calves and the success the dam had in delivering them.

The calves have been on Pillsbury Calf Starter since the third day; they were weaned from milk at about eight weeks. They are growing fast and gaining weight.

THOUGHT OF THE MONTH

No race can prosper till it learns that there is as much dignity in tilling the soil as in writing a poem.

—Booker T. Washington

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for every letter used in this column. Send us any practical ideas you have discovered on management, feeding and breeding practices.

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You are cordially invited to visit any of these

Better Ohio Pastures

(Continued from page 84)

pasture mixture was much better as a result of the soil treatment and the carrying capacity of the pasture was about doubled.

The soil was so deficient in humus it held water and, when plowed, turned up heavy and made one believe it should be drained. Be it here stated it was not drained. With the addition of humus and the aeration of the soil with crop roots, water is not now held on the surface. The earth is friable and works up well when plowed and cultivated.

The Initial Experimental Work

Mr. Monroe has given us a concise statement of procedure to date, one that can quickly be grasped. It is in answer to our many questions. We suggest the reader observe the accompanying diagram of the farm as he reads Mr. Monroe's statements:

"The first four years — '38, '39, '40, and '41 — white-faced steers grazed companion paddocks with the herd of Jersey cows. When we changed pastures for the cows, the steers changed pastures, too. In the four years the steers were on K in two seasons and L in two seasons, and likewise for the cows. The steers and cows did not graze the same pastures during the same season.

"Starting with 1942, only dairy cows were used on this farm and the herd was enlarged from 16 to 21, with six or eight yearling heifers in addition.

"During the first four years the steers and cows were used as lawn mowers to measure pasture yields. Forage production was measured in terms of square yard harvests. Thus, several harvests were made at the beginning of a pasture period and at the end. Wire cages covering one square yard were placed in the field at the beginning of the period and, at the end, the growth made under these during the period was harvested. Thus, we obtained an estimate of growth before and after grazing, along with an estimate of growth during the period.

"All animals were weighed on three successive days at the beginning and end of each period to obtain live weight changes. For the dairy cows we had weights of the amount of milk produced. Every cow's milk was tested for butterfat each week.

"Neither beef production nor milk production was satisfactory under this system because the animals were required to graze the pastures clean. There was too much of the season that the animals were on short grazing. The yields from the fertilized fields, K and L, more than doubled those from the untreated, E and M.

Cow Performance

"We discarded the untreated fields and made treated pastures out of them by topdressing. Only two acres, 'M2', were saved as a museum. Attention was then directed to 'cow performance'. Two groups of cows grazed improved bluegrass pastures. One group was fed hay as soon as they wanted it in the season and as much as they wanted. The third group grazed the legume meadows. This work showed the advantage for feeding hay, even when the cows had apparently pretty fair grazing in the field. A good quality of legume mixed hay was fed. A good permanent pasture, plus hay, can keep up production. Note, these pastures contain clover and are really legume mixed pastures. The group on the legume meadows did well, as was to be expected, with practically no grain. Hay was not fed.

Hay vs. No Hay Supplement

"The next series of tests we fed hay, and no hay, to cows on the legume meadows, and a third group grazed the permanent pastures with additional hay. We can show no advantage from feeding extra hay to cows on legume meadows. Some of these pastures were a little tall for the best grazing. With shorter, more succulent growth, I feel our results could have been different but there was no great disadvantage to feeding the hay. Again, the cows on the permanent pastures with hay did well. These pastures were staying green.

"Legume mixed meadow pastures have given little or no trouble from bloat. On two occasions when we attempted to graze second cutting ladino, several of the cows showed bloating tendencies. Cows should be fed hay before they first go to legume meadow pastures and pastures should be free from dew or rain. This is the best bloat control we know; however, it is not an absolute preventive.

Cows of the Herd

"The herd was brought onto the farm in 1938 in the late winter and early spring. These cows were purchased after freshening. I had bargained for the cows in the late fall of 1937, with the understanding I had the right to refuse after freshening. At one time I had about 40 listed. Dr. H. G. Bond of the State Animal Industry Department gave me a list of herds to pick from that were not only accredited but had a good history. We finally purchased 17 cows from eight herds. They were all tested within 30 days of sale and again after they reached the farm. To date, we have never had a reactor in the herd and it has been accredited for both TB and Bang's and is nearly free from mastitis. I ran mastitis tests on all the cows before purchase. Someone told me that it was impossible to assemble a Bang's-free herd. Probably this was just luck, but we did it.

"The herd is bred to freshen in late winter and early spring so that it will be producing milk on pasture. Of course, we do not recommend this as a common practice. The breeding record of the herd has been good; one year 19 cows conceived to the first service. We have been breeding to a young bull, and for the last four years have had supplemental breeding from the Northern Ohio Breeding Association. The artificial insemination under our conditions has been as good as the natural breeding.

Feed Hay When Pasturing Bluegrass

"It has been shown in this experimental work that the hay fed to cows on improved bluegrass pastures was worth $194 per ton. This value was obtained from the increased milk production of a group of cows receiving hay as compared to a similar group of cows on the pasture that received no hay. The difference in milk production for the season averaged a little over 10 pounds daily per cow. The average amount of hay eaten was 3.6 pounds per day.

"Furthermore, the hay-fed cows continued to produce at a higher level after the pasture season than the cows which had not received the

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hay. These results were obtained on "improved" bluegrass pastures under a system of rotational pasturing where, to all appearances, adequate grazing was available.

"A repetition of this work in another year gave a similar indication that hay is of value for feeding cows on permanent bluegrass pasture. Under the conditions prevailing, the difference in production was about half of that indicated above. Hence, the value for the hay fed was approximately $97 per ton. Even this is good pay for hay.

"In these pasture experiments, a third group of cows has grazed legume meadow mixtures throughout the season. They have maintained a satisfactory production and have not experienced the July-August slump in production. They were not fed any supplemental hay. However, when pastures consist of lush second cutting alfalfa probably some additional hay feeding is desirable.

"The values of second growth legume meadows for pasture was also shown this season. No supplemental hay was fed and only one pound of grain a day, just enough to get the cows to their stalls. The group fed this way averaged 41.1 lbs. fat per month. The four highest producers averaged 47 pounds."

Comparing Three Methods of Grazing and Feeding Cows During the Pasture Season

Treatment	Production of 4% Milk Daily	Grain Fed Daily	Hay Fed Daily
	Lbs.	Lbs.	Lbs.
1. Bluegrass and grain	22.01	5.56	None
2. Bluegrass, grain and hay	32.28	7.65	3.63
3. Legume meadows and grain	30.04	6.14	None

Returns From Feeding Hay to Cows on Bluegrass Pasture

Increase in milk production (32.28 − 22.01) = 10.21 lbs.
Value of milk ($4.40 per cwt. − $0.25 hauling = $4.15 × 10.21 = ... $0.42
Cost of extra grain (7.65 − 5.56 = 2.09 @ $70 per ton) = 0.07

Net value of increased milk to be credited to hay feeding ... $0.35

If 3.63 pounds of hay yield 35c worth of milk, one pound of hay = $0.35 divided by 3.63, or $0.097.

2,000 pounds of hay, or one ton, = $194.00

Heavier Toll on Male Calves

Nature is tough on the bull calf!

Although about 51 per cent of all calves are bulls, about 3 or 4 per cent of them are born dead or die the first day after birth, says Dr. L. O. Gilmore, of the department of dairy husbandry, Ohio State University.

Recorded evidence also indicates that more bulls are aborted than heifers, he adds, explaining that it is not known why nature should be harder on the male than the female.

When twins, triplets, or other multiple births occur, bull calves are less likely to survive than heifers.

Although nature and chance determine whether the calf will be male or female, Dr. Gilmore says the cause of the higher death in bull calves may be associated in some way with the manner in which sex is determined.

Blessed is the man who has a skin of the right thickness. He can work happily in spite of enemies and friends.—HENRY T. BAILEY.

Winter and summer, Alcoa Aluminum Roofing pays its way. In summer it reflects hot sunshine, keeps barns and sheds cooler inside. In winter it throws off storms, snow and ice. And all year 'round it saves you time and money. Alcoa Aluminum never needs painting, can't rust away, lasts for years and years.

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Theodore Funke and son, Joseph, operate 168 acres. They have 10 milk cows, 12 beef cattle, 11 brood sows and market about 300 hogs a year. About 136 acres are in permanent pasture, most of which is fenced with U·S·S American.

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Parity and The Dairyman

(Continued from page 81)

keep on with our present system. In the past year the government has bought up about $3 billion worth of farm products in order to support prices of just a few items. Surely we can't look forward 20 years and see $60 billion or more of butter, cheese, dry skimmilk, corn, wheat, and other products piled up in warehouses and grain bins.

What could we do with all the surpluses the government continues to buy? "Dump them on the world market," some say. But the world's leader in politics and trade wouldn't be a very popular fellow as a price-cutter. We wouldn't like Canada to dump her surplus wheat and New Zealand to dump her surplus butter on our market at half price. "Give our surpluses to the poor people," others say. There are possibilities of using some surpluses for this purpose, but the problem of using large surpluses has a thousand knots. Who are the "poor" people? When is a product "surplus"? How will the surplus be distributed?

"If we don't need all these products let's cut production," is another solution offered. They say we should cut down on corn and wheat and grow more grass. But you know as well as I do that most farmers would produce about as much, in total farm products, with a few more acres of hay and good pasture and a few less acres of corn or wheat. Soil conservation people say we would produce more over the long run. Some say we should grow grass instead of cotton — or make dairy farmers out of our cotton farmers. This probably would increase total agricultural production. Besides doing little or no good the program for reducing total production would get us tangled up in the worst mess of production controls, marketing controls, and red tape that we have ever seen.

We needn't expect to get 100 per cent of parity in the next 20 years because we won't be able to get that much money from taxpayers. Our present program gives little assurance of increasing prices at all, over the long run, because we haven't found methods to dispose of surpluses or reduce production. To make matters even worse — even if we could get parity prices the way we're doing it, we wouldn't have solved the farm problem.

Causes of the Farm Problem

What is this farm problem that is such a tough nut to crack? There really is no single aspect; it is a bundle of problems. For example, production of crops in some areas is very risky because of the weather. In these areas incomes fluctuate widely over a period of years. Another example may be seen in some areas where farmers are producing a product no longer in great demand. These farmers should shift to other farm enterprises but need capital and other help in order to make the shift. There are a multitude of problems that make up this bundle we call the real farm problem, but two major ones will be given special emphasis here:

1. Our farm families make up about 20 per cent of the nation's population, but they receive only about 10 per cent of the nation's income. That means that, on the average, each farm person of the nation receives about half the income of his city cousin. However, evidence indicates that the 50 per cent who sell 90 per cent of the farm products have incomes about equal to non-farm people. And many of the 50 per cent who sell only 10 per cent of the farm products are nearly in poverty.

2. Farm prices fluctuate wildly because consumer purchasing power has its "ups and downs," and a little change in the retail price that consumers are willing to pay results in a large change in farm prices. This is because marketing margins are "sticky." Let's take an example. Suppose farmers get $4.00 a hundredweight for milk at the condensery, and by the time it gets to the grocer's shelf in 110 14½-ounce cans, at 13 cents, it is worth $14.30. The marketing margin is $10.30. Now suppose consumers will pay only 12 cents a can, or $13.20 for the 110 cans. The marketing margin is "sticky" so it stays at $10.30. Subtract $10.30 from $13.20, and you have $2.90 left for the farmer's hundredweight of milk. Retail prices dropped from 13 cents to 12 cents per can, or about 8 per cent. But farm prices dropped from $4.00 to $2.90 per hundredweight, or about 28 per cent. This is just about the picture of dairy prices from 1948 to 1949. However, when consumer incomes rise and retail prices rise, farm prices rise very rapidly. When farm prices rise and fall rapidly, farm profits rise and fall even more rapidly. Farm prices and farm profits are on the whip end and this is what hurts when prices fall.

These are two of the major aspects of the real farm problem. Now let's see what we are doing about them and what we could be doing.

Income A Real Farm Problem

What should we do about farm people making up about 20 per cent of the population but receiving only about 10 per cent of the nation's income? If the national income is $200 billion should we go ask the non-farm people to dig up 10 per cent or $20 billion to pour into agriculture? Then agriculture would have 20 per cent of the people and 20 per cent of the income. Isn't this essentially what we're trying to do now? We haven't reached $20 billion, but $3 to $4 billion were spent for farm aid in 1949. Redistributing income, we call it. We are reminded of the Washington bureaucrat who asked his farmer audience, "Is there anyone in the crowd who doesn't think the farmer is entitled to as high an income as the fellows in the city? And a meek little farmer in the back of the room spoke up, "My neighbor has a cow and a pig and a few acres of land, but he hunts and fishes most of the year. He doesn't have much income. I make $3,000 a year. You make $6,000 a year. You give my neighbor $3,000 and we'll all have the same income."

Our nation grew strong and prosperous and productive because our working men moved from one job to another if they couldn't make "ends meet" at the old job. If a man wants to live by hunting and fishing and wasting time, that's his own business, but he shouldn't ask for a handout.

If a man wants to better himself by shifting jobs he should have every opportunity to do so. Today there are millions of farm people "backed up" on the land waiting for opportunity to knock. They're not unemployed — they're "underemployed." They are trying to make a living for their families with two or three acres of cotton, or an acre of

tobacco, or four or five milk cows. Maybe this doesn't sound like your neighborhood but it is the common thing in some neighborhoods. These people don't know where other job opportunities are and they aren't trained and qualified for many of the jobs if they did know where they are.

Let's create an opportunity! Let's start with our youth! Any farm youth who doesn't have pretty good assurance of operating a good, efficient sized farm while still in his young and productive age should have an opportunity for some real honest-to-goodness non-farm training. We could offer to train him so well that the business and industrial world couldn't get along without him. Let's take a few of the billions of dollars we're pouring into "prices just a little higher" and make an investment in our farm future. Twenty years from now we would know we had had a worth-while farm program. If we keep on with our present programs, whether the Agricultural Act of 1949 or the Brannan Plan, we'll still have this unbalanced income problem 20 years from now. We'll still have 50 per cent of our farmers producing 10 per cent of the farm products. It might even be worse, because our present program is helping "the rich get richer and the poor get poorer." The more farm products you have to sell, the more you benefit from "prices just a little higher."

Can We Stabilize Farm Prices?

Now what do we do about the second major aspect of the farm problem, the wide fluctuations in farm prices that cause farm profits to jump up and down? To be successful in farming it is getting to be as important to be born at the right time as it is to be a good manager. You might say, "since it is primarily the fluctuations in consumer purchasing power that cause wide fluctuations in farm prices, let's stabilize consumer's purchasing power." It is the folks that spend the other 90 per cent of the national income that determine prosperity and depression in agriculture.

There is little doubt that we should put great effort into stabilizing the industrial side of our economy. But we're not sure we've learned how to do it yet. Until we do let's continue some kind of financial aid to agriculture during depressions. But let's steer away from our present system. Now we get lots of aid for agriculture — when the nation is in an industrial boom and farm prices are pretty good. Tax collections are good. But when we get into depression, tax collections aren't so good and farm aid is cut. That's just the opposite of what we want. In 1949, one of the most prosperous years of our nation's history, we poured 3 to 4 billion dollars into agriculture. How much would we get in a depression? If we must accept farm aid in prosperous years to make sure we get it during depressions, let's spend it for education and training our surplus farm youth. In prosperous years we could find millions of jobs in business and industry for well trained men. In the meantime every effort should be made to keep industry operating at full blast.

Dairy Prospects

Starting January 1, we began a new farm program under the Agricultural Act of 1949. Doesn't this program pretty well take care of the dairyman? Didn't dairy products get on a preferred list ordering the Secretary of Agriculture to support dairy prices in 1950? Didn't we find a new way to compute parity so that parity prices for milk are 14 per cent higher than they were under the old method? The Secretary must support dairy prices from 75 to 90 per cent of parity, and the method of computing parity was changed. However, when the Secretary announced price supports in December it was seen that prices would be supported in 1950 at about the same level as in 1949. In dollars and cents the support level will be the same, but as a per cent of parity the support level will be lower in 1950. The important thing is not how we compute parity. The important thing is how much money the Secretary has for supporting prices and how successful our dairy leaders are in getting some of this money.

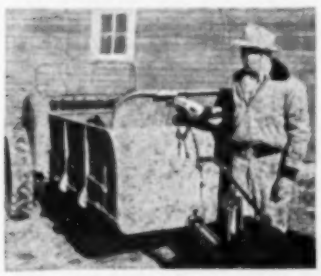
Our present government price policy will not solve the problems of the dairymen. "Prices just a little higher" won't get that dairyman with four or five cows an income as high as his city cousin. Present policy didn't stop milk prices from skyrocketing to $4.25 in 1948 and dropping to $2.75 in 1949. Production controls to the extent of a little more hay and pasture and a little less corn and wheat won't give us parity prices for dairy products.

Dairymen will get high and stable farm incomes when we get high and stable farm incomes to agriculture in general. We will come close to achieving these goals when we get high productivity per worker in agriculture and continuous high employment with good earnings for the non-farm worker. These should be our primary objectives in agricultural policy.

A high standard of living is possible for our dairymen without a mass of price supports and production controls. It can be achieved with efficiently operated farms, carrying 25 to 30 or more cows that average 300 to 400 lbs. fat, and by continuous expansion in the business side of our economy. To those who have no great future in this farming game, we could offer training for responsible jobs in industry and business. At the same time we must strive to make our pricing system perform the jobs it was meant to do, and not try to raise farm incomes by jacking prices up "just a little higher."

A farmer who never had thought anything of walking 10 miles a day now has a son who never thinks of it either.

Manure Load Counter



John Davis, owner of Tanglewood Farm in Eaton County, Michigan, believes in complete farm records. He's shown here pointing at the counter which he installed on his manure spreader to keep exact count on the loads of manure hauled from the barn.

His Holstein herd is stabled in a pen-type barn and when it's cleaning-out time he hauls several loads to the field. He records the number which go on each field in his "field diary" along with other pertinent information about that field. The counter is rigged so that when John kicks in the lever to start spreading manure, the load is registered.—Grant Salisbury.

Feed PURINA CALF STARTENA and have Big, Rangy Heifers by 4 Months

Do you like to raise big, heavy-milking, long-living cows?

When you follow the Purina Calf Plan, you can see the cows you want *already developing* by the time your calves are 4 months old.

HERE'S WHY:

Calf Startena is a carefully blended *dry* feed that takes the place of all but 15 to 20 gallons of the milk or gruel usually fed. It is concentrated and very tasty . . . gets more actual food solids into calves than they could possibly get from many times more milk or gruel, which are mostly water.

A test on one or two calves will quickly show you the difference. Get Purina Calf Startena from your Checkerboard Dealer. Takes only 300 to 400 lbs. per calf, so it costs only half as much to feed as milk.

RALSTON PURINA COMPANY
Buffalo • St. Louis • Denver • Los Angeles

For heifers big enough to freshen 4 to 6 months earlier than average . . . feed a PURINA BODY CHOW after 4 months old—just one gallon a day.

EDITORIAL COMMENT

OLEO WINS IN SENATE

AS THIS issue goes to press, the United States Senate has approved the pro-oleo bill passed in 1949 by the House of Representatives. Some minor differences still exist between the House and Senate versions of the bill but they are being reconciled in conference committee. There seems little doubt that the conference committee report will be adopted and the bill will go to President Truman for his approval.

After two weeks of heated debate, the crucial test vote was taken Tuesday, January 17. This vote was on the Wiley-Gillette dairy compromise proposal. It would have eliminated all taxes and fees but would have prohibited the interstate shipment of the butter-yellow oleo. Dairy forces were defeated 48 to 37 on this measure.

The following day the vote was taken to approve the House-passed bill. As amended, it passed 56 to 16. The new amendments added by the Senate provide that a retail package of butter-yellow oleo shall have a net weight not exceeding one pound and each part or parts of the contents of such package shall be manufactured, prepared, and molded so as to be triangular in shape. Another amendment makes it illegal for oleo manufacturers to indicate in any way in their advertising that oleo is a dairy product. Whether or not the House conferees will agree to these amendments remains to be seen. The House itself would not accept such proposals when the issues were up for debate and voting last year.

INTER-STATE GIVES SUPPORT

WHEN the Inter-State Milk Producers Cooperative met in annual meeting last November, it adopted two resolutions that reflect the character of the organization. Like any good dairy cooperative, Inter-State concerns itself with more than one individual phase of the operations of the dairy industry. As a cooperative, its membership is interested not only in the price of milk. It is concerned with soil conservation, research, farm credit, transportation, advertising, taxation, and so forth.

Reflecting the soundness of thinking and the depth of understanding of Inter-State are the following two resolutions approved by the membership:

Contagious Bovine Diseases

"We endorse the federal-state programs for the control of bovine brucellosis and tuberculosis, and urge their continuance until complete eradication of those diseases is attained. To this end we favor more rapid extension of systematic plans of eradication of brucellosis on an area basis, utilizing vaccination wherever indicated in conjunction with testing and elimination of diseased animals.

"As a step to expedite the program for the eradication of brucellosis and tuberculosis, we especially urge the Bureau of Animal Industry, United States Department of Agriculture, to establish control of the interstate movement of Brucella vaccines and antigens, and tuberculin, in such manner that the livestock sanitary officials of the several states may be informed enabling them to establish such intrastate control as may be necessary to insure the administration of potent products by properly trained persons and to prevent the use of such products where unauthorized, and in a manner to interfere with the control programs.

"We favor the appropriation and allocation of adequate funds to carry out the control programs in all their phases, including the payment of indemnity for diseased animals sacrificed. We also favor increased appropriation of funds for research in the study of brucellosis, trichomoniasis, and mastitis, with special emphasis on improved immunization and therapeutics and procedures.

National Brucellosis Committee

"We approve the action of the Bureau of Animal Industry, United States Department of Agriculture, in initiating the formation of a national brucellosis committee made up of representatives of national organizations interested in the control of brucellosis, to lend its advice, encouragement, and assistance in the eradication of this devastating disease of domestic animals and pledge our support to all activities of that committee directed toward this end."

CAN EXPAND TOO FAST

IN A recent trip through five southeastern states we were thrilled to witness the strong trend to a livestock agriculture and particularly to dairy farming. The evolution taking place in southern agriculture at the present time is perhaps one of the most significant developments in American agriculture in this part of the 20th century. It is more important, by far, than any national farm plan or program yet conceived. The effect of this changing emphasis will be felt not only in rural areas but throughout our entire economy.

With cotton allotments being severely curtailed, tremendous acreages of available, tillable land are open for alternative uses. If we were interested only in numbers of dairy farmers, numbers of dairy cattle, and total pounds of milk produced, we would use every method known to promote unlimited expansion of dairy farming in the Southeast. Such a program might well be disastrous, however. Unless markets are expanded equally with increased production, the result would be most unfortunate.

As in any new dairy area, the quality of dairy products on the market is not high enough to create a greatly expanded demand for these foods. Supply and demand must be well balanced or demand must exceed supply for an expanding production pattern. It would appear that a lot of work must be done on the quality question in new dairy areas before promoting large increases in numbers.

Though it may sound treasonous, we believe the opportunities for livestock agriculture in the South may often lend themselves better to beef production than to dairy production. This is particularly true in those areas that are forced into some type of livestock production rather than making the move as a matter of choice. Dairy farming is a far cry from cotton farming in distribution of labor, amount of labor, and skills required. It would appear, on the surface at least, that a higher proportion of ex-cotton farmers would be successful in raising beef cattle than would be true in the case of raising dairy cattle and producing dairy products for the market. After all, such an evolution from one-crop agriculture to dairying is a familiar evolutionary pattern. It was true in the East, the Midwest, and the Far West where one-crop agriculture was followed by beef cattle and sheep. They were, in turn, succeeded by dairy cattle, hogs, and poultry.

KEEP your face always turned toward the sunshine and the shadows will fall behind you.—WHITMAN.

INCOME TAX RECORDS

THROUGHOUT the country millions of farmers wrestled with income tax reports this year, figuring up income, expense, net income, and the final amount due the government to pay for all federal expenditures. Many farmers learned for the first time the value of accurate, complete farm account records. Others took a shot in the dark — shot low — wrapped up their returns and submitted them. Still others did absolutely nothing with the hope that the collector of internal revenue would not catch up with them.

On the basis of reports we receive from several sections of the country this hope will be in vain. Internal revenue investigators are spot-checking farmer income tax returns in every section of the land. Falsified reports or absent reports may eventually work out to the extreme disadvantage of the farmer involved. The burden of proof is on the taxpayer, not on the collector of internal revenue. It has been our experience that complete farm accounts and well prepared income tax returns are usually cheaper in the long run than incomplete records and questionable returns.

Everyone in the dairy business should keep business records and use them, not only for income tax purposes but as a guide in profitable farm operation. Farm account books are available from many sources. One such source of an excellent book is Hoard's Dairyman. To obtain the Hoard's Dairyman Farm Account Book merely send 25 cents to Hoard's Dairyman, Fort Atkinson, Wisconsin. It has often been said that the lead pencil is the most valuable and yet the least used implement on the farm. Nineteen fifty is a good year to prove that saying wrong on dairy farms.

A SIGN OF PRIDE

AN ATTRACTIVE farm sign is normally a justifiable sign of pride. It usually indicates a well managed dairy farm and high quality cattle.

In our opinion, there should be many more farm signs identifying the good farms that deserve recognition. In recent years certain supply houses and breed associations have made available very attractive signs at a modest cost. Not only does a farm sign put the "finishing touch" on a nice farmstead; it also will more than pay for itself in increased sales from the farm. For example, if a farmer is breeding Guernsey cattle, prospective buyers are more apt to stop and make their purchases. After all, it is nothing more than good advertising.

As a result of our traveling throughout every section of the country we have come to the conclusion that there are more dairy farms advertising clothing, beer, tobacco, and carbonated beverages than there are advertising dairy cattle and dairy farm products. Recently we passed a dairy farm where registered breeding cattle were bred. A large sign on the end of the barn identified the name of the owner and the breed of the cattle, but fully 90 per cent of the sign advertised "Drink Coca-Cola." At a dairy meeting in the immediate vicinity, considerable concern was being voiced about selling more milk and dairy products to the consumers of the area. There is an excellent opportunity to promote the increased sale of cattle and dairy products through appropriate advertising done in good taste.

THE history of liberty is the history of the limitation of governmental power, not the increase of it. When we resist the concentration of power, we are resisting the processes of death, because concentration of power is what always precedes the destruction of human liberties.—WOODROW WILSON.

Opinions, Brickbats and Bouquets . . . . .

"Farmers Deliberately Gypped"

A Virginia farmer reports his experience with an income tax collector.

IN 1912 I bought 216 acres of land. It was not fenced and was nearly all in timber that had recently been cut over. The buildings were mostly of the log and mud variety except for an old four-room house that was built in 1807 and whose chimneys seemed to be leaning back in disdain as a result of the foundation giving way.

I paid $2400 for the place. The man who sold it to me said, "I am not selling you a farm. It is just a piece of land that has been tenanted to death for forty years." I asked him what was the first thing I should do with it. He told me to put a fence around it and get the open land in grass and use it as cattle range until the timber grew again. Later I learned that I should have had a lawyer examine the title before I paid for it. Also that it ought to have been surveyed. When I had the title examined it took five years to find out that I had no title and nobody else had a title. The survey showed that the land was all there. It took eight years to give me title by adverse possession.

After getting the title clear I put up a modern set of buildings at a cost of over $15,000, cleared up 139 acres of land, and had the place fenced. In the next 25 years the place developed into a really nice farm noted for its fine pastures and alfalfa fields. Most of the credit for this was directly due to the teachings of Hoard's Dairyman.

During 1946 I sold the farm for $19,000 and later reported the sale to the local office of the Collector of Internal Revenue. The deputy collector put down a few figures and told me that I owed the Treasury Department a tax of $1,168.50. I paid that amount without quibbling as I felt that any overcharge would be refunded after I filed my regular return in January. In January 1947 I filed a return which showed that the farm had actually cost me nearly $3,000 more than the sales price.

In a few months a deputy collector came to my present farm and told me that he wanted to check over my return for the year 1946. He had with him the return which I had filed in January 1947. He proceeded to tell me that the Bureau of Internal Revenue was a very tough outfit to deal with and that it never lost a suit in court. I just let him talk and figure things to suit himself. When he wound up he told me that I owed $146 in addition to what I had already paid. I told him that I was not going to pay another cent and was still claiming a refund of the sum of $1,168.50 which I had overpaid.

Over two years later I received a notice from the office of the Collector of Internal Revenue in Richmond, Va., which told me that further examination of my returns for the year 1946 showed that I owed over $300 in additional taxes for that year, and giving me thirty days to pay or file a protest. I took all the facts and figures to a first class public accountant and asked him to go over them and let me know what he thought of them. In a few minutes he looked up and said, "Boy, somebody has robbed you and he wants to rob you some more." I am no accountant but my experiences with the gentlemen representing the Treasury led me to believe that either they were suffering from a mental squint or were deliberately trying to gyp me.

A subsequent check up with other farmers in five different states showed that they had had similar experiences. Figures furnished by the Treasury Department showed that between 1940 and 1947 income tax collections from farmers took a tremendous jump during those years. Somebody was sure putting the heat on the farmer. One man sold his farm to his son for just what they agreed he had tied up in it. Later the Bureau of Internal Revenue tried to collect a tax of over $16,000 on the "profit" he made. He finally settled for $2,900.

Another farmer sold his farm for over $150,000 and filed a return showing that he had owned the farm for forty years and had sold it for less than his improvements had cost him. A deputy collector came in and wanted to collect about half the sales price as income tax! This farmer had kept his records in good shape and turned them all over to a first class public accountant and did not have to pay a cent! My accountant told me that there were tens of thousands of similar cases but that in 98% the farmers were bluffed and intimidated into paying taxes they did not owe.

My protest was filed in a few days and was given a hearing in a few months! The examiner refused to discuss the protest or to listen to my attorney. He said that we could settle the matter in a few minutes! He just proceeded to take my original return which I had filed nearly three years previously, and stated that in his opinion I was due a refund of $949.50. I told him that I was claiming a refund of the whole $1,168.50 which I had paid. He blandly informed me that I might get it if I went to court but that it would cost a lot more than if I took his offer. This subject should be fully aired. I have collected data in seven states which leads me to believe that farmers have been deliberately gypped out of billions of dollars by figure juggling on the part of incompetent tax collectors.

Virginia. ARNOLD G. INGHAM.

The Soil

We are dependent creatures all,
Though titles we may wear.
The good earth is a heritage
Entrusted to our care.

We are all debtors to the soil.
It's treasures does it yield.
Our raiment, food, and shelter, too,
Are gathered from the field.

Why do we waste so rare a gift,
And let it wash away,
Eroded by the elements,
And our neglect today?

The soil should be my sacred trust,
My goal should always be
To pass it on a richer earth
Than was first lent to me.

—LYNN COPELAND.

The worst of our troubles we conquered
And all of them we've survived
But what torment and pain we endured
From evils that never arrived.

The New Idea Cylinder-Pushbar Loader picks up clean, saves valuable leaves and short pieces. No threshing, no jamming. Heavy-duty durability.

The New Idea All-Steel Wagon is extremely useful for haying and all other field and road hauling. Sturdy, safe, light running on rubber tires.

The New Idea All-Purpose Elevator handles baled hay—also ear corn, small grain, filled sacks, crates, etc.—quickly, easily, economically.

Whatever *your* field conditions—hilly, level, rocky, gullied—the NEW IDEA Side Rake takes them all in steady stride. Rigid steel-girder frame holds it permanently in line at any tractor speed. Flexible 4-bar spiral reel yields quickly to any obstruction. Here's the solid strength of NEW IDEA quality construction. Here's the added advantage of a dependable tedder—always ready when needed. Here's smoother, faster raking season after season.

And positive pick-up too! NEW IDEA double-curved teeth make a clean sweep of every crop. They're tough, resilient, quickly and easily detachable. No other tooth design can match their gentle, thorough windrowing and tedding. No other rake can give you this plus-performance feature!

There are many more facts about NEW IDEA Haying Machines that mean money to *you*—how they can safeguard feeding value, save you hours of hard labor, boost your profits. Get them first-hand from your friendly NEW IDEA dealer. Mail coupon for free illustrated literature.

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☐ 4-Bar Tractor Rakes
☐ Hay Loaders
☐ Corn Snappers
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21 Smart ideas

ONLY FORD GIVES YOU A CHOICE OF V-8 OR SIX

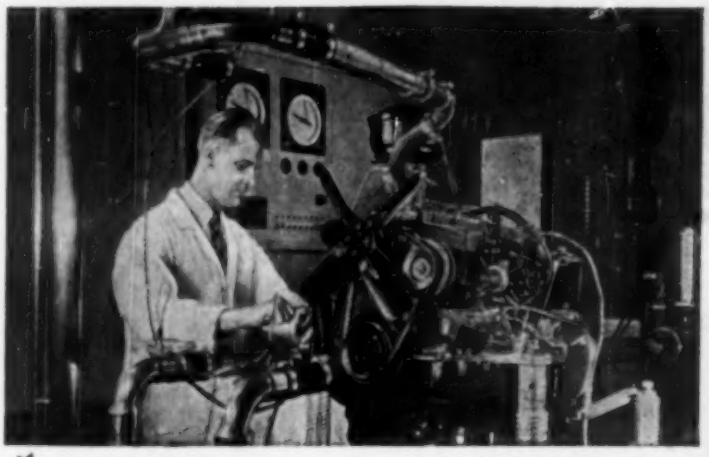
The Ford truck line for 1950 gives you new models, new power, new features . . . 21 smart ideas in all, to help cut trucking costs.

NEW MODELS like the F-3 Parcel Delivery, which expand the 1950 Ford Truck line to over 175 models. This wide selection means that you should see your Ford dealer for the right truck for you, no matter what you haul.

NEW POWER like the brand-new, 6-cylinder "Rouge 254" truck engine. Thus, for 1950 you have a choice of four great engines, two Sixes, and the only two V-8's in trucking. Only Ford gives you a choice of V-8 or Six.

NEW FEATURES like the full air brakes now available on the 1950 F-8 Big Jobs . . . new Million Dollar Cab seat construction . . . new Synchro-Silent transmissions . . . new features that make driving safer and easier.

New models! New power! New features! You'll find all these smart ideas in Ford Trucks for 1950. And you'll find the smartest idea of them all . . . Bonus Built construction which means big reserves of strength and power. That's why the 1950 Ford's the smart buy for you. Your Ford Dealer can arrange quick delivery on most models. See him today!



★ **NEW 110-HORSEPOWER SIX!** The new "Rouge 254" makes the 1950 Ford F-6 the most powerful 6-cylinder truck Ford has built. The ultra-modern "254" has Free-Turn exhaust valves. Autothermic pistons, chrome-plated top piston rings. High-Lift camshaft and many other power-producing, cost-saving smart ideas.

★ A brand-new, 4-speed Synchro-Silent transmission is standard equipment with the new "254" engine.

Model F-2, 5,700 lbs. G.V.W.
Express or Stake

Model F-1, 4,700 lbs. G.V.W.
Panel, Pickup or Stake

Model F-3, 6,500 lbs. G.V.W.
Express or Stake

Model F-5, 14,000 lbs. G.V.W.
Wheelbases; 134, 158 and 176 in.

Model F-6, 10,000 lbs. G.V.W.
with Duals

Model F-3 Parcel Delivery
Wheelbases, 104 and 122 in.

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—IN A FULL LINE OF OVER 175 TRUCK MODELS!

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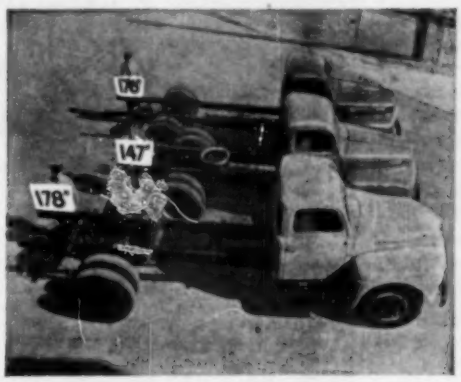
★ **NEW F-7 REAR BRAKES!** Big 15"x5" aluminum shoes. Double-cylinder, hydraulic booster, self-energizing type.



★ **NEW WHEELBASES!** Three of them for 1950 Fords. Models F-5 and F-6 now have a 176-in. wheelbase for bodies in the 15-ft. range. The 145-h.p. Big Jobs have added two new wheelbases to get a total of five. First, a 147-incher for tractors and dumps. Second, a 178-in. wheelbase for 15-ft. bodies.

★ **NEW PARCEL DELIVERY!** Forward control chassis with grille, windshield and quarter-windows. Add your choice of bodies. Available in Series F-3 and F-5 (Special order).

★ New single-speed rear axle for F-8 ★ New, extra-heavy duty clutch with "254" engine ★ Million Dollar Cab ★ Level Action cab mounting ★ Air Wing door glass ventilators ★ New Double Channel frame for Big Jobs ★ Gyro-Grip Clutch ★ New single-speed axle for F-6 ★ Roll Action Steering ★ New, extra-heavy duty drive line for F-6 ★ Quadrax rear axles ★ 4 engines—choice of V-8 or Six ★ New heavy duty 3-speed Synchro-Silent transmission available for Models F-1 through F-3 ★ Choice of over 175 models ★ Bonus Built construction.

One of many 145-horsepower Ford F-8 Trucks operated by Michigan Motor Freight Lines, Inc. of Detroit, Mich.

Model F-5 Cab-Over-Engine 14,000 lbs. G.V.W.

Model F-5 School Bus Chassis Wheelbases: 158 and 194 in.

Model F-6 Cab-Over-Engine 16,000 lbs. G.V.W.

Model F-6: 16,000 lbs. G.V.W. Wheelbases: 134, 158 and 176 in.

Model F-7, 19,000 lbs. G.V.W. 35,000 lbs. G.T.W.

Model F-8, 22,000 lbs. G.V.W. 39,000 lbs. G.T.W

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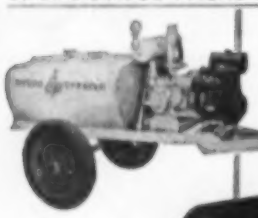
IT'S CONCENTRATED!

A SPOONFUL PACKS A WALLOP



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For full-range spraying efficiency, it's the Myers, GP Sprayer! Equips you for fast, effective, and *easier* handling of many year 'round jobs; spraying orchards, field crops, livestock; control of weeds, mosquitoes, flies. Keeps you "caught up" on white-washing, disinfecting buildings—practically all farm sanitation and clean-up requirements. Provides important stand-by fire protection—plus scores of other profitable advantages. Easy adjustment assures right pressures for every purpose. Self-Oiling Bulldozer Pump delivers smooth, steady performance under highest pressures. Readily portable, ruggedly constructed. A real all-job sprayer—always ready to roll! Mail coupon *today*.

Complete line of Myers quality sprayers — 2-wheel, 4-wheel and skid types — row-crop sprayers for 4 to 10 booms. Capacities to 50 gpm., pressures to 600 lbs.

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Feeding Problems With Hay Shortage

THE past dry season has resulted in short hay crops in many parts of the country. As a result, dairymen are wondering what to do to extend available supplies for the winter barn-feeding period. Among the evident solutions for this short-time feeding problem are (1) purchase hay from other areas, (2) increase the rate of concentrate feeding, (3) use such products as citrus pulp, brewers grains, and (4) increase the efficiency of available supplies. To meet the last point some have advocated processing roughages in some way such as grinding or chopping hay, mixing it with grains or molasses and other things in an attempt to increase the value of the hay.

Grinding or Chopping Hay

There is good agreement among researchers that grinding hay or other roughages changes only its physical form and not its feeding value. Hay finely ground and fed alone to cattle has a lower digestibility and palatability and throws cattle off feed more readily than long or coarsely chopped hay. Careful studies have shown that roughages ground and supplemented with concentrates will result in no more milk production than comparable roughages fed in long form.

Hay is often chopped as a matter of convenience in harvesting, storing, and handling. As in the case of grinding, chopping hay does not in itself increase the feeding value. Sometimes there is an advantage in chopping poor quality hay in that the cow is forced to consume the coarse, stemmy portions which would otherwise be refused. Where hay is of sufficiently good quality to be palatable, chopping does not even have this advantage.

Ground Hay in Mixed Feeds

Opinions relative to mixing finely ground hay in concentrate feeds to make a bulky dairy feed differ considerably. First of all, the addition of ground hay to a grain mixture does not increase the feeding value of the hay nor the grain. The feeding value of the mixture is directly proportional to the amounts of hay and the grain. Many believe that such mixtures are expensive ways of marketing hay.

In this connection it should be mentioned that the addition of ground, high-quality legume hay to swine and poultry feeds is sound and economical feeding practice. In this instance the hay furnishes needed minerals, vitamins, and perhaps unknown factors. The same results may, however, be obtained by feeding the high-quality hay separately.

There are some who advocate the addition of ground hay to dairy feeds purely on the ground that it gives needed bulk to the grain. This, it is felt, makes it easier to keep high-producing cows on feed and decreases the incidence of congested udders at the time of calving. Such an opinion has little basis in fact. The cow does an excellent job of mixing her own feed thoroughly in the rumen without the help of man—a point that enjoys experimental support. Several studies have shown that the feeding of heavy feeds as ground corn and linseed meal, even in liberal amounts, has given perfectly satisfactory results when fed separately from the roughage.

Hay vs. Concentrates

Many farmers will choose to extend their available hay supplies by either feeding more concentrates or purchasing additional hay. The question of which to do is an important one.

A part of this decision will be involved in the question—what is the minimum amount of hay that I can feed to dairy cows? The usual hay feeding recommendations call for 1.5, 2, or 2.5 lbs. hay equivalent per 100 lbs. body weight per day dependent on the quality of the roughage. Experiments have shown that less than these amounts can be fed with satisfactory results. Or put in another way, concentrates can meet more of the cow's requirements than is ordinarily recommended. Such a practice may increase the costs of milk production somewhat. As a general rule, it is not safe to feed much less than about a pound of hay equivalent per 100 lbs. body weight per day, which for cows of average size, would range from 9-14 lbs. per day. The remaining nutrient requirements can be met with concentrates.

If one has enough hay to meet the minimum hay needs, he must consider the question—shall I buy more hay or more concentrates? The best guide that we have as to the relative value of hay and concentrates is the net energy value of each. On this basis a good dairy feed is worth about 1.75 times as much as good quality hay. If the market price of mixed feeds is about 1.5 times the going market price of good hay, the concentrates are the better buy. Conversely if concentrate mixtures are selling at twice the price of good hay, then good hay is the better buy at the time.—S. E. SMITH in The Dairy Herd Improver.

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Low Cost • Speedy • Easy to Operate

OPERATES ON POWER TAKE-OFF OF ALL TRACTORS AND JEEPS

Attaches with two bolts. Tractor carries saw, eliminates chain thrust. Nationally famous chain, universal joints and bearings.

NOTHING EXTRA TO BUY

Will notch, fell, or saw logs without extra attachments. Easy to handle. Only 106 lbs. Low initial cost, minimum maintenance.

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Clip Cows Regularly With Sunbeam STEWART CLIPMASTER

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Send I.P.C. booklet giving scientific facts re lightning, and check chart for farm bldgs.

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Address ....

City .... State ....

Luck Is the Name — But Not the Formula

(Continued from page 83)

pounds of 20% phosphate per acre. The phosphate is mixed with manure in the barn gutters and the two are applied at the same time.

Raise Own Replacements

Not many animals other than bull calves have been sold off the farm for breeding purposes as yet, as the brothers have been attempting to keep the size of the herd increasing. Last fall there were between 35 and 40 heifers freshening. This will help establish a high production volume for the base period in the early winter months.

The herd is milked three times a day and is on DHIA test. Last year 125 Holsteins averaged over 13,000 lbs. milk in 305 days. The herd is constantly culled to keep the quality up with the quantity. Calves have been vaccinated against Bang's for the past two years and the herd is accredited for Bang's and TB.

The large herd plus all the land to be farmed keeps Cabell, his herdsman, A. R. Lace, and 14 regular employees busy. All employees have modern homes on the farm. The milking is done at 7:30 a. m., 3:30 and 11:30 p. m. Four men operate 8 single unit milkers, while one cools the milk and two do the feeding. Only one man is required to do the feeding at the midnight shift. The milk is hauled into the milk plant at 6:00 a. m. each morning.

There is some trouble with mastitis to be reckoned with in the herd, and A. R. Lace works constantly to combat it. When a cow is being dried off, he injects 50,000 units of penicillin into each quarter and says it helps a great deal in preventing mastitis during the next lactation.

Calves are raised in individual stalls in a separate barn and are fed milk from a nipple pail. They are given a gallon each day for two months. Cabell Luck has found that ground corn cobs make good bedding for his calf stalls.

The milk cows are bedded with wood shavings, winter and summer. They are fed a grain mixture containing 19% total protein at the rate of 1 lb. to 4 lbs. milk for Holsteins, and 1 lb. grain to each 3 lbs. milk produced by the Guernseys. Dry cows are fed about 6 lbs. of the same grain ration each day.

An entire book could be written about the Luck Brothers. But few dairy farmers would have time to read it—just as the Luck Brothers would have difficulty in finding time to give a writer the material. Even for a story like this—which can't give all the details, it took a little chasing to catch them and get the information. Having a large setup certainly doesn't mean a chance to sit back and relax for Beattie and Cabell Luck. They emphasize that though they like their work, with them it is business and must be run as such. That means that any success they expect or any progress they make will come from hard work—not just "good luck".

Information, Please

"Do you love sister Clara, Mr. Simpson?" asked the little brother frankly of the caller.

"Why, Willie, what a funny question," replied the astonished Mr. Simpson. "Why do you ask that?"

"Because she said last night she'd give two dollars to know, and I need the money for a new football."

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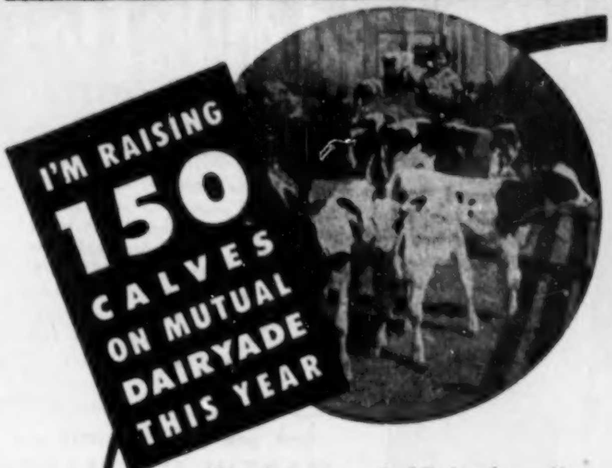

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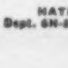

Heavy brass—2⅝" x 2¼". Black ⅝" numbers, both sides. Best quality. Complete Cow Set: Tag, 40" Chain & Attachment Link—$1.50 each. Complete Calf Set: Tag, 30" Chain & Attachment Link—$1.25 each. Priced f.o.b. Newport, Ky. Write for free circular—ear tags, hog rings, etc.

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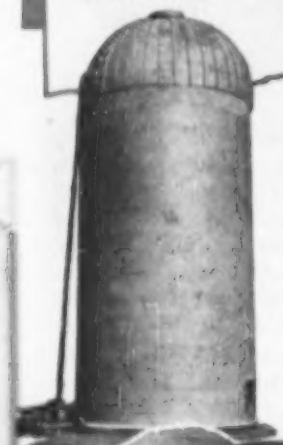

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A NEW TODAY No cutting, no pitchfork labor. Hay comes to the Haymaker, cut GREEN hay retains style. Send coupon for details.

Allan McCosh, Sunnymead Farm, Maysville, Iowa, says: "I save hours of time every day because I never see a pitchfork to feed my cattle."

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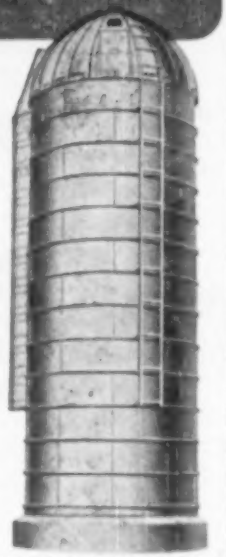
Your dairy profits will hit new highs when you feed rich silage produced the Martin way. Scientific fermentation assures finest grass or corn silage with fragrant, spicy odor, rich color . . . and no spoilage or frost damage! Your feed costs go down because nutritious Martin silage reduces the need for grain feeding. Air-tight walls, impervious to moisture, retain juices, prevent drying out—will withstand heaviest pressures of grass silage. A Martin Silo will last a lifetime with minimum upkeep. Send the coupon for profit-making facts!

A MARTIN USER SAYS: "My other silo was in bad shape so I put up a Martin just last year. Well that first winter sure sold us on the Martin. I didn't lose any silage from freezing or rot. It's the best silo I ever saw."



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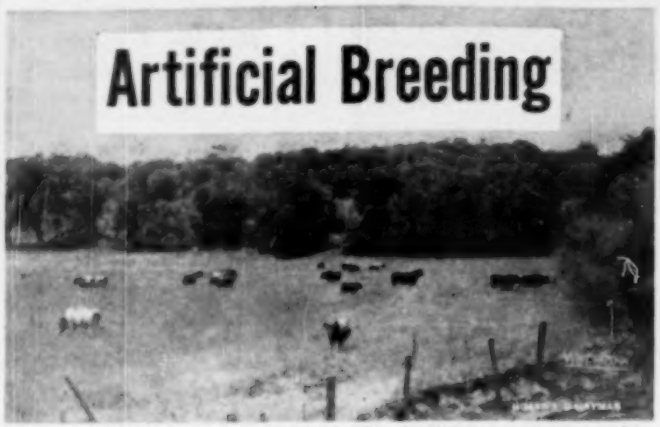

Thirty to 40 bulls in Eastern Iowa Artificial Breeding Association graze pasture together.

Bulls in Pasture Together

LYLE W. JACKSON and J. W. PIRIE

NOT too long ago a motorist driving into Cedar Rapids, Iowa, on Highway 150, stopped in amazement at the sight of some 30 to 40 bulls grazing together in a pasture just at the edge of the city. Bulls grazing together in the same pasture? The motorist found it incredible. In fact, he was so upset by what he had seen that he drove into the Eastern Iowa Artificial Breeding Association headquarters to inquire about the strange phenomena he was witnessing.

"Say," he said to the first person he met, "what are all those bulls doing out in the pasture?"

He was told they were grazing.

"Why," he replied in a tone that implied genuine pity, "for heaven's sake. Why don't you fellows get some steers and feed them? They'll make you a lot more money."

It took quite a bit of explaining to get the man straightened out. He'd heard of the artificial breeding of dairy cattle in a vague sort of way, but the thing that was utterly impossible to get through his mind was the fact that it was possible to graze that many bulls together without having them kill each other. He went away after awhile but it was obvious he wasn't completely convinced, despite the fact he stood there and watched the bulls graze peacefully for at least an hour. Everyone isn't as skeptical as that confused gentleman was, but it does come as quite a shock to most people, even those who have wide experience in the handling of bulls, to see them grazing together.

The Eastern Iowa Artificial Breeding Association has handled its sires that way for a number of years. Why? The answer is a progressive one, but simple. Look at it this way: The most important thing to the artificial breeding association operator is results — good conception rates — the ability to settle cows. Good conception rates cannot be obtained with out-of-condition bulls. The idea, then, is to keep the bulls in condition. One of the prime factors in keeping bulls in good condition is exercise.

The Association's answer to the problem of exercise is to give it to the bull naturally—the way nature intended him to get it and in the amount he instinctively knows he needs. The proof of the pudding is that it works. It not only helps keep the bull in condition but officials at Eastern Iowa feel that it keeps them in service longer than bulls that are exercised unnaturally.

About the matter of the bulls getting along. That's the thing that seems to interest, if not actually astound, everyone. Well, they do get along. They're sort of like people in some respects. Some of them are gregarious, just like some people you know. They like to be in the crowd, have people (bulls, that is!) around them. Others sort of pal up together in a little group of their own. Every day you'll see that same little group of bulls grazing together.

Still others like to keep to themselves and every day you'll see that same old boy out there by himself. He's not unfriendly, you understand, just likes to keep his distance. And like people, it doesn't take long for the leaders to come to the front and establish themselves. There's always going to be one, or possibly two, that rule the roost. No trouble, you understand, but they run the show and the rest of them sort of fall in line because those one or two top boys keep them in line. They seem, somehow, to understand that. It would almost take a bull psychologist to properly explain it, but the fact is that they do get along well. The Eastern Iowa Artificial Breeding Association has never had a serious injury to a bull from fighting while they were out to pasture together.

It wouldn't be fair to leave the impression that these valuable sires are thrown into the group as a whole in willy-nilly fashion as quickly as new ones are obtained. The rules of ordinary precaution would dictate that a new bull coming into the herd undergoes a period of quarantine. The EIABA does effect such a quarantine in order to run tests to determine that the bull is free from disease and is in good health.

If the new arrival has successfully passed his period of quarantine, he is placed in the bull barn with the other sires. But he is not immediately allowed to pasture with them. He remains in the barn for as long as a week while the other bulls become accustomed to him. Even then he is not put out to pasture with the whole group. He will be placed with two or three other bulls. If he shows a tendency to be troublesome he finds himself outnumbered, since his companions are used to one another and he is new. He usually is quick to realize the

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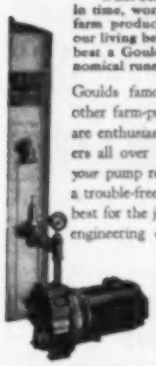

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odds are insurmountable and adjusts himself to the new community.

The bulls are observed closely by barn employes during this period and if any rough stuff starts, it is quickly broken up. The new bull joins the herd as a whole when he has demonstrated he can live with it.

Eastern Iowa Artificial Breeding Association officials feel (and this is not a positive conclusion) that the herd instinct may be as strong in the bulls as it is in cows or steers. Since the herd contains no cows, there is nothing for them to fight about and the herd instinct prevails.

EIABA officials also feel that this type of natural exercise keeps the bulls cleaner and keeps their feet in better condition, an item of major importance in the handling of a bull stud. It seems also to keep them in a more vigorous state of good health. They look hardier and actually are in better condition. There is no indication of soft muscles or flabbiness. In addition, the fact that they are out in the sunlight and on green pasture, in itself seems to be beneficial. EIABA officials do not know exactly what it is, but they are convinced their sires stay in better condition than they would if they were not allowed to pasture. It is a conclusion drawn from actual observation at the Eastern Iowa Artificial Breeding Association headquarters.

Exercise alone, however, will not keep the bulls in good, vigorous condition. The feeding program is carefully supervised. They are fed a balanced grain ration running about 12 to 13 per cent digestible protein once a day in their barn. The ration also includes all the mixed clover and timothy hay they will eat and all the water they want to drink. Salt and minerals are fed free-choice. A limited amount of grass silage is fed daily during the winter months.

The bulls are kept in their stalls at night during the winter months but are turned out during the day. On their return to the barn at night they seek their own stalls — creatures of habit, just like milk cows.

New York Record

According to the December issue of the "New York Artificial Breeders' Co-Operator," the New York association has broken its previous record on non-return rates. A 73 per cent non-return rate on a 60- to 90-day basis was recorded for August, 1949. This is the highest level achieved in the 10-year history of the New York association. The 73 per cent non-return rate means that 73 per cent of the cows bred in August for the first time did not return for a rebreeding up to November 1, 1949.

Pointers for New Farmers

Good advice for beginning farmers comes from Michigan State College agricultural economists who reviewed the 1950 outlook. They advocate four points for the man who is going into farming:

1. Don't buy a farm with limited capital. Going into debt for more than one-third of the value of real estate and personal property is risky.

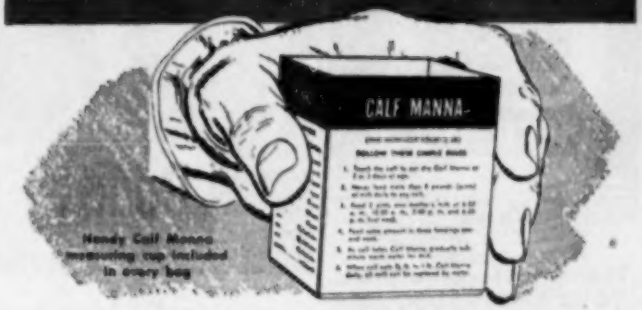
2. Don't buy or rent poor land.

3. Don't farm in areas where marketing outlets are limited.

4. Don't skimp on items of production which increase net earnings.

Never point a gun at anything you do not wish to shoot.

FEED YOUR STOCK ECONOMICALLY



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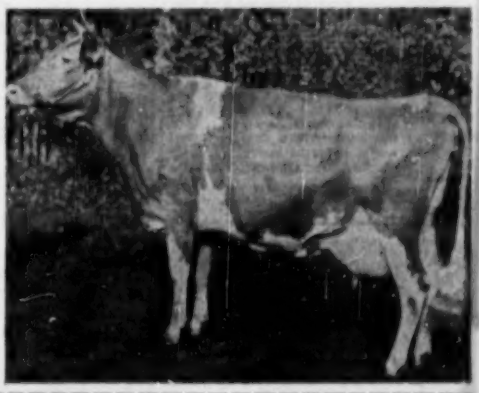

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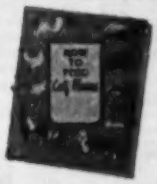
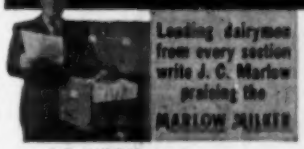


These are not Random Testimonials . . .



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Donald Gordon, Stockton, Mo.: "On our herd of registered Jerseys the Marlow gets most of the last and richest milk—and thanks to the Marlow, no more mastitis."

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A Venture in Faith

H. H. ALP

TWO chicks were housed in eggs which lay side by side under the warm sheltering feathers of the mother hen. The time of shell-breaking had at last come. One day a conversation took place through the thin shell which separated them. Said one of the chicks: "I feel a very strong impulse to break my shell today. I have a hunch that there is a larger world of light and air and food, with plenty of space to move around in. But since I have not seen and do not know of this other world, it would be very foolish of me to tear down the only house I know anything about. I will, therefore, play safe and not break the shell."

Replied the other chick: "True, I know nothing of that other world. But something burns within me to make the venture, since to remain here will mean certain death. I do not see how feet, wings, eyes, and bill are to come into play, but I can hear so clearly the call of a larger life with its boundless horizon. So here goes, friend, for the unknown venture."

The rest of the story? Well, what do you think? A beautiful little chick was soon basking in the sunlight. When the housewife later arrived she found in the deserted nest a single egg. Cracking it open she discovered the stiff dead body of an unhatched chick — a victim of playing safe.

The year 1950 is with us and we are now entering the last half of the 20th century. This fact should make us stop and think about what may be ahead and our respective responsibilities towards the future.

From the point of view of the poultryman, we are undoubtedly leaving behind the old and taking on the new.

The new will be the continued expansion of commercial production and all its implications. It cannot be otherwise for the consumer is the boss and consumers are not spending their money for the nondescript, ungraded poultry and eggs. They want a standardized quality product which means you really will have to be in the poultry business to produce it!

Like the chick who wouldn't break his shell and reach out into the unknown, the flock owner who refuses to change with the times will find himself a victim of not being willing to break the "shell."

This country has always paid off to the folks willing to work, create, improve, and who have been enterprising and proud of their independence and right to work.

Said one little chick with a funny little squirm,
"I wish I could find a nice little worm."
Said another little chick with a queer little shrug,
"I wish I could find a nice little bug."
Said a third little chick with a shrill little squeal,
"I wish I could find some nice yellow meal."
"Look here," said the mother, from the green garden patch,
"If you want any breakfast, get busy and scratch."

Do you have a rack in the laying house in which you can feed alfalfa or some other good legume hay to your hens? If not, make one the next time you have to take time out for a rainy day. Or you might prefer to put a bale of alfalfa in the laying house and let the hens work on it. Either method is a good way to keep the hens working and producing efficiently.—Illinois College of Agriculture.

Effect of Temperature on Egg Production

Most poultrymen know from sad experience that a sudden cold spell oftentimes causes considerable loss in egg production. Dr. F. A. Hays of the University of Massachusetts states:

"1. Low temperatures of winter seem to stimulate a higher incidence of pause.

"2. Low temperatures do not consistently increase the duration of the pause."

Leaving out the consideration of physical discomfort of cold weather on poultry, there remains the very likely possibility that the damage done to egg production by low temperatures more frequently results from a drop in water consumption rather than anything else.

Freezing temperatures undoubtedly force the birds to slow down on their drinking and when this happens, egg production is on its way down! For this reason it is almost a "must" to protect winter egg production by keeping the water drinkable and this usually means some kind of heating device either in the houses or around the drinking water.

There are a good many electrical water heaters and the cost for one should be quickly repaid in maintenance of egg production.

Farm accounts well kept stop the leaks in poultry farming.

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RUSSET SEBAGO POTATO
Developed and recommended by the Wis. College of Agriculture. Similar to Sebago, but is also resistant to scab, as well as late blight. Beautiful, smooth, large oval-shaped tubers. Cooks white. Excellent yielder.
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Keep Tab On Your Cows

Monthly Records Two Milkings	Price of a Year's Supply
10 cows, one month	$1.25
25 cows, one month	1.75
35 cows, one month	2.00
For Three Milkings a Day	
15 cows, one month	$1.50
For Four Milkings a Day	
10 cows, one month	$1.50

Weekly Records Two Milkings	Price of a Year's Supply
10 cows, one week	$2.50
20 cows, one week	3.00
30 cows, one week	3.50
Price of a Year's Supply	

All prices include postage paid. Your check perfectly acceptable.

HOARD'S DAIRYMAN Fort Atkinson, Wis.

When Shall I Buy My Baby Chicks?

EVERY poultryman is anxious to manage his flock of chickens so that they will pay him the highest net income. An important management problem is to buy baby chicks for delivery at the proper time.

Many producers emphasize only the number of eggs produced per hen. This is important for a profitable enterprise, but it is even more important to get high egg production during the months of high egg prices. A poultryman can govern the time of high production by the time he buys his baby chicks. Early purchase of chicks means early egg production by the pullets in the fall. Yet that is not the entire answer to the question of when to buy baby chicks.

You might say, "Buy them early." But how early? A farmer may not have a brooder house that will protect the chicks properly during the cold and stormy weather of February and March. Generally, however, more mistakes are made by starting chicks too late than too early. Unless pullets are started laying early in the fall, a real opportunity to make a profit on them may have been lost. This is true because when egg prices start skidding in the fall they skid rapidly.

However, there is still another consideration. It isn't merely a matter of getting pullets started to lay in early fall. It is more a question of getting into production of large eggs. When a pullet starts laying she naturally lays smaller eggs than after she has been into full production for some time. The real price advantage comes from producing large eggs as early as possible. The premium paid for large eggs is shown in the table and chart which follow.

Comparison of Average Monthly Grade A Farm Prices Paid by Four Central Assemblers During 1948

	Grade A Large	Grade A Medium	Difference
	Cents	Cents	Cents
January	41.5	36.4	5.1
February	41.0	35.9	5.1
March	40.6	36.5	4.1
April	41.8	37.1	4.7
May	40.2	35.7	4.5
June	42.5	36.7	5.8
July	44.8	37.8	7.0
August	49.5	40.9	8.6
September	51.6	39.8	11.8
October	58.9	42.1	16.8
November	58.7	43.6	15.1
December	46.4	38.3	8.1
Average	46.5	38.4	8.1

Note that the difference between grade A large and grade A medium farm prices stayed relatively constant through the first seven months of the year, varying from 4.1 cents to 7.0 cents a dozen. Beginning with August, however, the difference started to increase and reached a peak of 16.8 cents a dozen in October.

This means that the price of grade A large eggs increased much more, percentagewise, than did the grade A medium price in the months of September, October, and November. This is of outstanding importance to a successful poultryman because by getting his chicken into production earlier in the fall he can take advantage of this seasonally high price for large eggs.

Nation's Large Egg Production Low in Fall

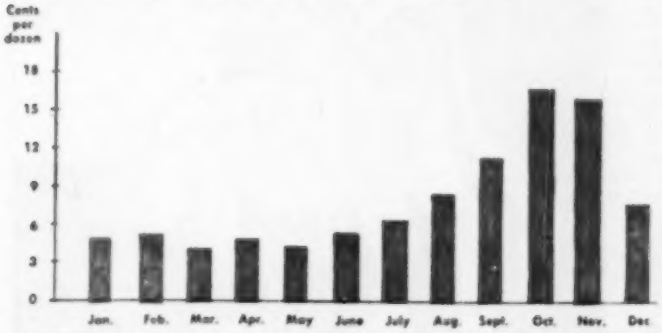
Most producers don't get their pullets into full production until late fall or early winter. During the months of September, October, and November there is a scarcity of large eggs. The widest price difference between grade A large and grade A medium eggs occurs during those months. Prices of grade A large eggs are up when receipts of these eggs are down. The accompanying chart illustrates that the way to make money on the large eggs is to have them ready for market when the other poultrymen are short of these eggs.

It's Time to Act Soon

Suppose we assume that pullets will be laying mostly large eggs at the age of 7 months. If they are to be in production by September 15, when large eggs begin to command a real premium, they would have to be purchased as day old chicks by the middle of February. If a poultryman waits until April or May to buy his chicks the few eggs produced by the pullets in September, October, and November will be small or medium in size and will not command a premium.

Of course it is true that the expense of brooding may be greater when chicks are purchased in February or March than if they are bought in April or May, but this will likely be more than compensated for by the added returns for the poultryman who has good brooders for his chicks.

Many good poultrymen, especially in the East, keep the year-old hens in the fall after the pullets have started laying. The pullets are moved to the regular laying house when they start laying, and the year-old hens are moved into a "fall shelter" such as a machine shed or a special inexpensive shelter built for that purpose. They can be kept there as long as the rate of lay continues at a reasonable level and as long as prices are high. Then they can be moved on to market.—W. P. MORTENSON and T. F. GRAF, Wisconsin College of Agriculture and U.S.D.A.



Cents per Dozen for Grade A Large over Grade A Medium Eggs, by Months, 1948.

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Arcady Sweet Mixing Feed increases growth, production

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Treat Cows Gently...

The rule to be observed in this stable at all times, toward the cattle, young and old, is that of patience and kindness. A man's usefulness in a herd ceases at once when he loses his temper and bestows rough usage. Men must be patient. Cattle are not reasoning beings. Remember that this is the Home of Mothers. Treat each cow as a Mother should be treated. The giving of milk is a function of Motherhood; rough treatment lessens the flow. That injures me as well as the cow. Always keep these ideas in mind in dealing with my cattle. — W. D. Hoard

(This notice to help has always held a conspicuous place in the Hoard's Dairyman Farm buildings.)

WHAT difference does it make how you milk a cow? Plenty. All right, then what are the different ways of milking, and just how much difference does it make?

First of all a dairy cow may be called a "dumb animal", comparing her to humans, but all dumb animals aren't just plain dumb. Some of them are pretty smart and some are pretty sensitive. The dairy cow is a sensitive animal. Treat her rough and the results may be "rough" for you. Treat her gently, with consideration of her feelings and senses, and she'll give you results that are more in keeping with the kind of feeling you like when you look over your herd's production records.

Skin Is Tender

Whether you live in the sunny south or the frozen north, February can bring some chilly, damp, disagreeable weather. Cattle notice it and are affected by it just as you are. If they stand in the barn all night and are turned out during the daytime, or even for just a short time each day, their udders and teats may show it. The sudden change from a warm barn to a cold, damp blast from the north does have an effect on the tender skin and tissues of the teats and udder. Chapping may occur and when the milker is slipped on, old "Daisy" may let you know it hurts by giving the milker a good swift kick.

Then what should you do? Crack her across the back with a stool to teach her that if she kicks she'll be punished? Perhaps that's what you feel like doing. But answering the kick in that manner may mean a kick in the next milk check, too.

If the cow's teats are sore and chapped, apply salve that will soften and heal them. She may still kick a few times until the teats are healed up, but that's only natural and you'll just have to use a little patience. You and the cow must work together to get a good job of milking done. Instead of sneaking up and jerking out the milk before the cow realizes what's going on, and perhaps giving her a slap when she feels a pain from sore teats and gives a kick — the job has to be done cooperatively. You won't be able to get all of the milk if the cow does not cooperate by "letting down" her milk. Consequently, for good milking you must train the cow to "let down" her milk when you're ready to take it away from her.

Massaging Stimulates "Let Down"

Nature's way of getting a cow to "let down" milk is nursing by the calf. The calf's warm, moist mouth stimulates the nerves of the teats and causes the cow to produce a chemical substance known as a hormone. This hormone contracts muscles surrounding the tiny spaces in the udder where the milk is stored, and milk is squeezed into the lower part of the udder. When this happens, we say the cow has "let down" her milk. You can speed up this "let down" by wiping and massaging the udder and teats with a cloth wrung from very warm water. And, of course, this also cleans the teat, and if it is sore, softens it so that milking will be less painful for the cow.

You know that after cows have been chased by dogs, beaten with a stool, or frightened in any way, they don't let down their milk. Anger, fright, or disturbance of any kind interfere with the action of the "let-down" hormone, and as a result, almost none or only a small part of the milk can be taken from the udder. Sometimes sore teats cause so much pain during milking that the usual "let down" is not obtained.

Just as you feel more cheerful after a hot meal on a cold day, your cows also respond to feed. Feed them just before milking if you wish, although this is not a "must." But feeding them regularly is important. If you feed them just before milking, do it that way each time. Cows are not human, but they, like you, are creatures of habit.

After you have the cow in the mood for milking, take it from her fast. Of course, that can be overdone, too. Hard, jerky hand milking, or prolonged machine milking can cause injury which may lead to mastitis.

Begin Training Heifers

Since we know that cows are sensitive and creatures of habit, it's well to consider the benefits of training a cow from the time she is a heifer to respond to a certain type of milking. The best time to start the training is immediately after the heifer has freshened. If you are going to milk her with a machine, it's best to begin with the machine the very first milking.

Heifers train easily to fast milking when they are placed in the milking line a month or more before freshening. They become accustomed to standing in their own private place and it becomes a natural habit for them to be there. And if you massage their udders occasionally as they "bag up", they'll become accustomed to the handling, and the swelling in the udder will be relieved. The tender skin of a young heifer's teats is more subject to cracking, chapping, and soreness, and they may need some applications of salve to keep them soft and to heal them up before freshening.

If you treat your cows right and train them in the right habits, they'll meet you half way when it comes to milking. Make milking pleasant for the cow and the results will be pleasing for you.

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WITH THE
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It's the Lantz double-blade cutting action that does the trick. A stalk cutter does not cut up the tough roots . . . but a Kutter-Kolter on your plow cuts through all kinds of trash, corn stubble . . . even tough hybrid roots so the plow can bury them clean, once over. Does it economically, too . . . no big investment. Be sure you get a genuine Lantz . . . nothing else like it. Every year, there's a last minute rush for Kutter-Kolters, so see your dealer now . . . or WRITE for FREE literature, and name of nearest dealer.

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Dept. W, Marshfield, Wisconsin

Advice to Young Dairymen

A 90-year-old dairyman and Master Farmer takes time out to offer some sound advice based on his practical experience.

IN NOVEMBER of 1946 we published an article, "Fifty Years of Records," describing the unusual and successful career of Everett Martin of Waukesha County, Wisconsin. At that time Mr. Martin was just completing 50 years of continuous record keeping on his herd of Holstein cattle. As this is being written, Mr. Martin has completed his 53rd year of continuous production testing records. Mr. Martin has experienced practically all of the heartaches and disappointments that a dairy farmer can encounter in a lifetime of dairy farming. These were described in our earlier article. Certainly he is well qualified in every respect to offer some good, sound, practical advice.

Recently Mr. Martin wrote us, as follows:

"I have long been a reader of your paper and have found both enjoyment and profit in perusing its pages. I have always considered W. D. Hoard among the best governors Wisconsin ever had. He was also the dairyman's best friend.

"I, too, am greatly concerned about the welfare of the youth of the rising generation and have taken note of the slipshod manner in which they are meeting life's problems. In my life's journey of 90 years I have seen changes; some good, some bad, and I have wished that I might do something to lead some young men to realize their responsibilities. In accordance with these thoughts, I have written what I call, 'The Observations of a Dairyman,' which I am enclosing. If you can use this in any way, I would consider it an honor."—EVERETT MARTIN.

Observations of a Dairyman

To the young man who intends to make agriculture his life work, I would say obtain a fairly good book knowledge of the line you intend to pursue but before you begin to operate on your own, look around the neighborhood for the best man who is working in the line that you intend to follow. There is a great deal more than a fence between good and poor farming. Hire out to that farmer for a year; yes, two years; regardless of the wages you receive You will obtain, by hard knocks, firsthand knowledge that will pay you handsome dividends in after years.

You will find, as you proceed, that agricultural enterprises are rarely, if ever, successfully operated by proxy. A thousand and one small things combine to make a successful farmer.

If you are a dairyman, you will find that there is a wide field from which to gather information. Choose the breed that appeals to you. Get as good foundation stock as you can afford. Look about for two or three breeders who have established a reputation for square dealing. Visit these men; talk over general farming with them; study their methods. Then proceed carefully. Avoid fancy priced stock.

Never think you have learned all there is to know about the dairy business, for you will learn something new every year.

Another thing that is very important, remember your word is good just as long as you keep it good, and not any longer.

When you have your herd established the next important point is production. The only way to get reliable information on that score is with a barn milk sheet, a spring milk scales, and a Babcock tester. Before you have gone very far you will find you will have to do some culling. The testing will tell you which cows to dispose of. By the daily weighing of the milk you will notice at once any illness in the herd and apply the proper remedy. It will be a source of great satisfaction to know how much progress you have made toward the goal you have in view. Progress cannot be made by guesswork.

You will meet with losses along life's journey. Face your reverses with fortitude. Approach your problems with an open mind and with a firm determination to win.

And, in conclusion, I would say roll up your sleeves, spit on your hands, get a good strong hold, and then hang on.

Good Eater May Not Be Good Producer

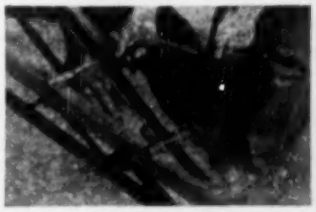
Some dairymen are still putting up with "nothing for something" cows, observes Enos J. Perry, New Jersey extension dairyman. Certain cows with good appetites and fairly good appearance sometimes are niggardly in their milk output, while other cows eating only a little more give two or three times as much milk.

For instance, says Perry, in a recent study of a New Jersey herd it was found that two cows ate $96 worth of roughage and grain, each, and gave their owner 3,600 lbs. milk, each. Two other cows in the same herd each ate $144 worth of feed and gave their owner 11,000 lbs. milk, each. For one and a half times the feed cost the good cows gave three times as much milk.

This shows again, says the State University specialist, that it pays to make a record of milk production, either through the dairy herd improvement association or by weighing the milk of every cow every day, or at least one day a month for both milkings. Then grain can be fed according to production and the low producers can be culled.

. . HANDY HINTS . .

USING CAR JACK



An old car jack provides a lightweight way to do an otherwise heavy job . . . lifting and lowering the tongue of a loaded trailer. This idea could be used to advantage on other similar heavy lifts. This particular one was built by William Curvin.

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Any cutter delivering 1 ton of silage per hp hour is usually considered good. On official test, Papec delivered nearly 2 tons per hour per hp used.

Papecs require less power than most other hay chopper-silo fillers because of their extra heavy cutting wheel and special, 3-bearing, main shaft.

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Ask your dealer for booklet telling how to make better feed from forage crops, or send us your name on margin of this ad.

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NATIONAL NO-MILK HELPS RAISE STRONG, RUGGED CALVES

Contains the vital energy, proteins, minerals and vitamins calves require.

IT'S EASY TO FEED . . .

Calves like it. Can be fed in gruel or dry form. Also available in pellets.

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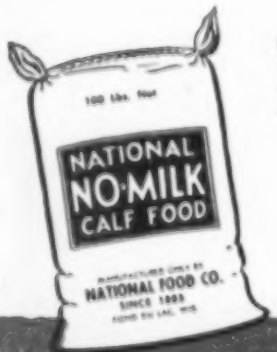
Saves up to 80% of the 1500-2000 pounds of whole milk which the calf would require.

FOLLOW THE LEAD OF successful dairymen who have been getting excellent results with National No-Milk Calf Food since 1885.



National No-Milk is the ideal feed for starting your calves.

FREE

National's valuable new booklet on calf raising. Full of helpful information. Write for your copy today.

NATIONAL FOOD COMPANY
FOND DU LAC, WISCONSIN

Annual Reminder at Farrowing Time

Recent investigations at some experiment stations have shown that newly farrowed pigs will suffer less from baby pig losses if warm quarters are furnished. Baby pig disease, with its accompanying drop in blood sugar, is less deadly if a 70° to 80° F. temperature is maintained for the first few days. That's near summer heat. When pigs fasted from birth were subjected to temperatures of 55°, they reached coma conditions in one-third the time required at the higher temperatures. These trials have indicated the need for and value of extra heat in brooders or housing quarters.

Surveys conducted in eleven midwestern counties have shown very high losses in young litters when improper facilities were tolerated. Nearly half, 41%, of these losses were due to chilling with hypoglycemia, or low blood sugar, accompanying the chilled condition. Twenty-five per cent of all losses were attributed to faulty nutrition, while diarrhea, brucellosis, and heredity were responsible for the remainder. The losses through chilling were especially severe when milk supplies were low.

Limited feeding of sows before pigs are born may be an invitation to baby pig losses. The former plan of reducing feed supplies a few days before pigs are due to arrive seems to have had its shortcomings. The reduced ration apparently accounts for the drop in blood sugar in the offspring. With the modern method of self-feeding sows for the entire gestation period, hog breeders report no change in feeding amounts before pigs are born gives best results. Rations used during gestation are laxative and nutritious. Why change them?

Brooders, heat lamps, or wall insulated warm houses are big factors in saving pigs, aside from their value in control of baby pig disease. Farm records show that an average of one pig per litter is killed by the sow. This heavy loss is attributed to the pile-up to keep warm. If the sow is disturbed suddenly, pigs lose their lives. In heated corners or in warm pens there is less need to seek warmth from the body of the mother. Which is best—the brooder, the heat lamp, the warm house? They are all good. Use the least expensive one.

Plenty of warm water, skimmilk, buttermilk, or a thin grain slop will keep up the water content of the body and help the milk yield. Early spring and late winter production, with cold weather as a hazard, requires especially tempting water supplies. Ice is a poor substitute for warm water. If there is ever any justification for buying the dairy by-products as powders or semi-solids, it would certainly be at farrowing time. Cost is a small item when losses are eliminated.

Don't forget the need for clean sows and clean pens. A few parts of warm soapy water and a good bristle brush are the requirements in making the sows sanitary for the "big moment." A few cans of boiling water, a few pounds of lye, and a good amount of elbow grease will put the pens in the same condition. Sore mouths, sore noses, necrotic ulcers, and other infections that beset young pigs are preventable. Once introduced into a herd the organisms that cause these troubles are not easy to handle.

Handy equipment saves time and work. A few dollars invested in small troughs and self-feeders will bring good income in man-hours saved. They are easy to store.

Good bedding, and plenty of it, will keep pens clean and dry. Wet floors are invitations to higher death losses.

Is There a Preference in Legume Hays?

Not too much investigational work has been done in determination of values of different legumes in brood sow feeding during gestation. However, field practices and experiences seem to be good guides.

Choice, leafy alfalfa appears to be legume "tops". It is slightly higher in protein than is clover, and with a finer leaf and higher percentage of leaf to stem, fits into the ration to better extent than does any of the other related hay plants. Where self-feeding is practiced the mixtures of alfalfa meal, grain, and protein supplements are easily compounded, and with 25% alfalfa meal used there is still no evidence of unusual coarseness or bulk.

Clover is less palatable and lower in protein and calcium. The coarser stem does not grind as readily as alfalfa and more waste occurs at the self-feeder because of the extra bulk. However, clover is often used as the source of needed proteins and lime when there is no alfalfa.

Soybean hay is a less valuable substitute for winter gestation feeding. The coarser leaves and stalks step up the fiber content and lower the palatability. Hog growers need to remember that any of the legumes is far better than none.

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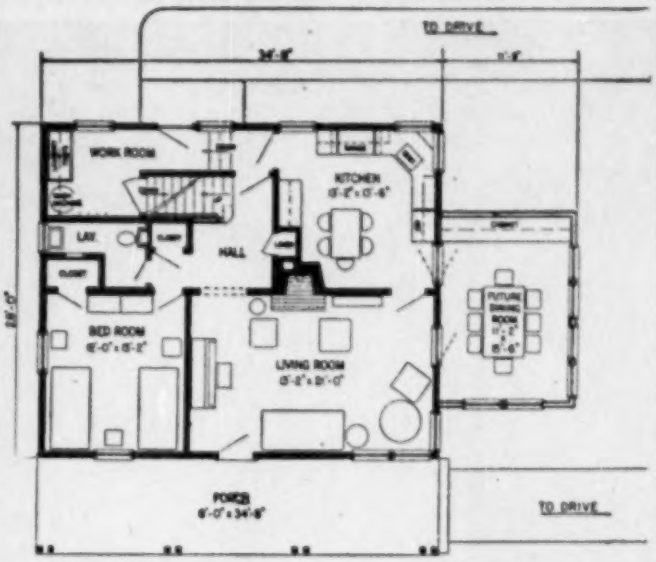
Farm House Plan Suggestions



FIRST-FLOOR PLAN

The above is one of the 15 farm house plans described in Miscellaneous Publication 658 — "Farm House Plans for Northeastern States". While developed to meet the climate and farming life of this section, the plans have a wider appeal. A copy of this circular and information as to completed plans may be secured from your state college of agriculture or direct from the Division of Farm Building, U. S. Department of Agriculture, Beltsville, Maryland.

★ ★ ★ ★

Cow-Life "Insurance"

Most dairy farmers today carry some life insurance. How many remember those numerous questions asked by the insurance company that had to be answered when the application for that policy was filed?

I remember some of the questions that were asked of me when I sought my insurance protection.

One question in particular was this:

"Give age of parents. If deceased, give cause and age at time of death."

Similar data was desired regarding my grandparents.

I have since thought a great deal about that question. Why did the company want that information? Of what value would it be in the appraisal of me as an insurance risk? Could it be that my inheritance had any bearing upon the years I might live or upon my resistance or susceptibility to disease? That was probably it. Old-time insurance companies don't ask questions as a rule unless there are pretty sound grounds for the asking. No doubt they were checking upon my inheritance for longevity. I would be a poor risk if I were likely to die before the average man does.

Some Important Questions

Let us change the subject. Let us think for a moment in terms of dairy cattle breeding. Are certain cow families more disease susceptible or resistant than others? Are some cow families longer life producers than others? Are such traits of inheritance passed on in cattle from one generation to another in much the same manner as in humans? It's something to think about. The belief is that such characteristics are transmitted from parent to offspring. Research data seems to support this fact.

If these assumptions are correct, should not cattle breeders then figure in their selections and matings to breed for health and longer life? Perhaps if they did this, we would have less breeding troubles in the offspring. Also less acute mastitis, when udder soundness is made a point for selection. Perhaps we would have cows that would "stand up and take it" over more years of productive service—would not wear out so quickly.

The old-line life insurance companies after long experience of accepting human risks must know what they are doing. Inheritance is not being overlooked. Perhaps breeders of dairy cattle should be a little more discriminating, too, when they select for rearing their bulls and their heifers. A few more questions about the longevity and health of the parents and grandparents might well be asked.—C. G. Bradt in The Dairy Herd Improver.

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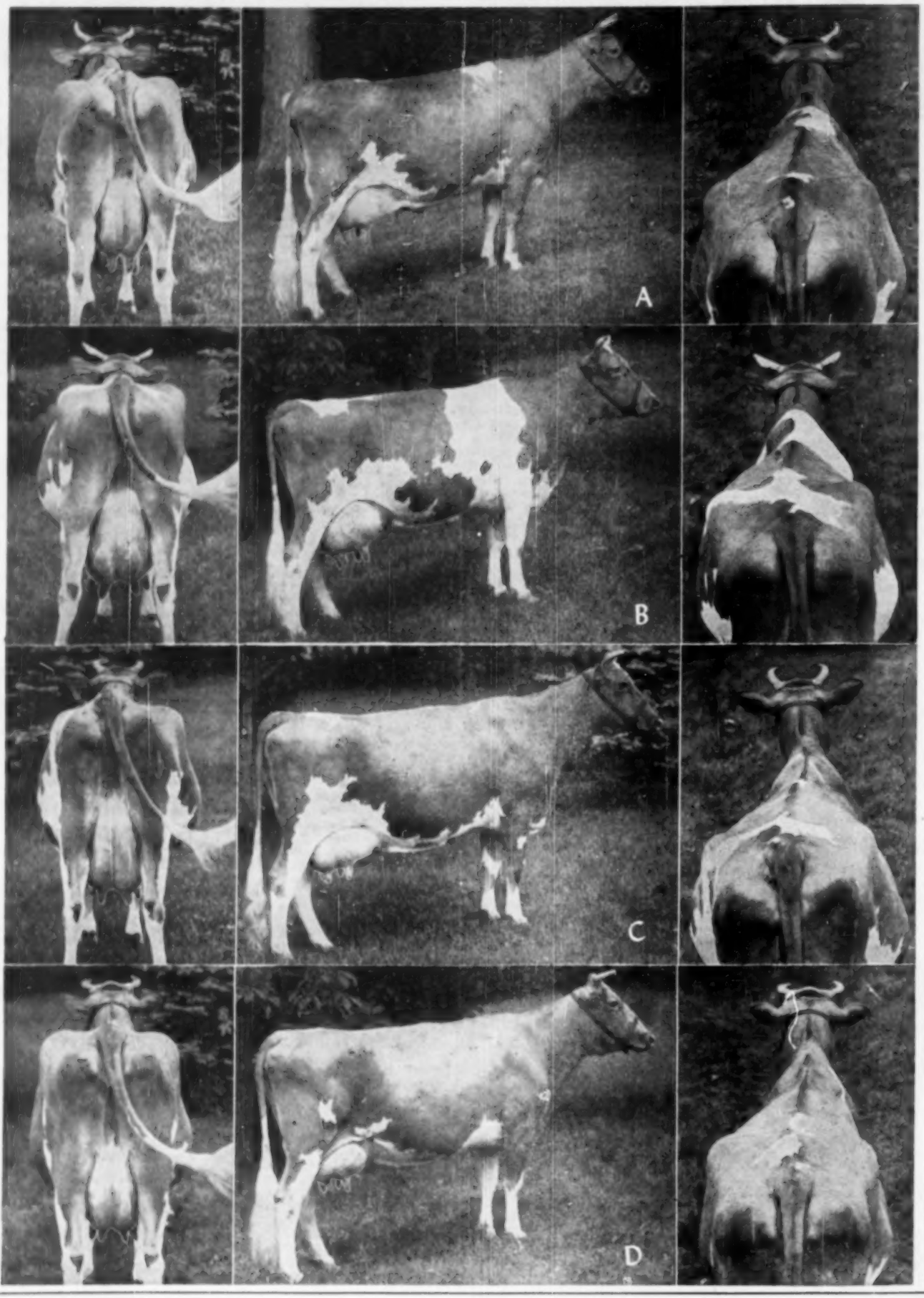
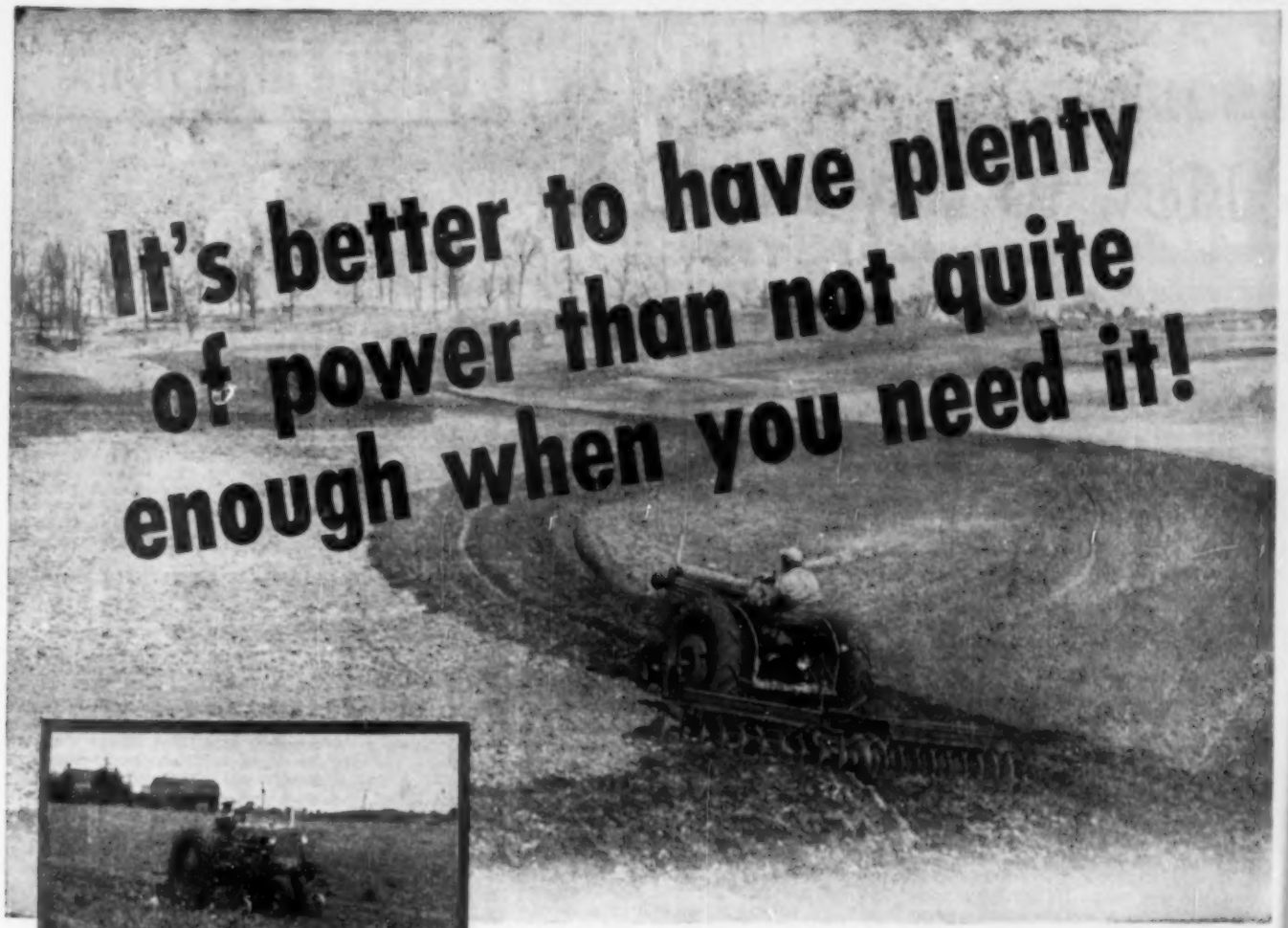
20TH ANNUAL COW JUDGING CONTEST

Third Class — Guernseys — Official Entry Blank, Page 117





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To match the superior performance of the Universal R, MM offers a complete line of dependable quality-constructed tractor-attached machines. This system of Quick-On—Quick-Off tractor-attached tools saves time and money in all types of field operation. See your neighborly MM dealer about these and other MM Modern Machines, Visionlined Tractors, and Power Units which are quality designed for dependability and economy.

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Dairy Farm Home

How to Buy and Care for Undergarments

Frequent replacement of undergarments is an expense you may be able to cut considerably. Here are suggestions to help you select quality garments that fit properly.

By Frances Mallory

WHETHER you are buying an undergarment to give as a gift or to replace a worn garment in your wardrobe, you like to feel you're getting your money's worth. You probably would like something practical, yet pretty. The following suggestions on how to buy slips, hose, panties, brassieres, and foundation garments will prove helpful to you the next time you buy one of these items.

Slips

When you buy a slip, try to suit the garment to your activities. A good-fitting slip follows the contours of your body, making a smooth, sleek line. If a slip fits well, it gives far better service than an ill-fitting one. It is more comfortable, easier to put on and take off, and far less likely to twist or ride up.

The type of slip you wear should depend on the proportions of your figure. Either the bias-straight or the all-bias slip is satisfactory for the slender woman who has a small bust and small hips and wears junior size dresses. The bias-straight slip is best for women whose dress sizes run from 10-20 and who have a 4-inch difference between their bust and hip measurements. This type slip has a bias top and straight skirt. The all-bias, four-gore slip is for stocky women because it allows ample hip room. Many four-gored slips are without a midriff section in order to give a smooth contour and better fit.

Every woman should be able to get a slip fitted to the proportions of her figure. However, unless you always buy the same brand or style slip, it is wise to try the slip on at the store. Never try to correct the length of a slip by adjusting the straps. Straps are made adjustable to improve fit at the waistline only.

Nylon is a very popular fabric for slips because both woven and knit nylon slips are easily laundered, have a low amount of shrinkage and high durability. However, nylon slips have low absorbency. Combinations of nylon and rayon or rayon and silk produce fabrics that have the advantages of nylon plus soft drapability.

When you buy cotton slips, look for the sanforized label to assure you that it will not shrink out of fit. In fact, always pay special attention to all labels. The manufacturer may give helpful suggestions about laundering and ironing that will make the slip wear longer if you follow them.

Lace trim should always be securely sewn to the slip with close, even stitches. All unfinished edges should be turned under and stitched down or trimmed in some way.

Double-stitched, self-material straps wear best. Fine, firmly-woven ribbon straps are serviceable, too. Straps should be stitched firmly to the body of the slip. On lace-trimmed slips the straps should be fastened to the lace and also to the body of the slip.

Hand sewn slips or those trimmed with delicate lace, open work, or applique should be washed and squeezed in lukewarm suds. Rinse until the water is clear. Roll in a Turkish towel to press out as much water as possible.

Tailored slips of cotton, rayon, or nylon can be washed along with other underwear in the washing machine. Use moderate temperature water and a good soap or detergent. Rinse and extract the water in the usual way.

To iron cotton slips, dry completely and redampen. Rayon slips should be dried only until slightly damp and just right for ironing. Iron slips on the wrong side and move the iron in the direction of the weave of the fabric. Be very careful of the ironing temperature you use. Always start out with the iron temperature set at "rayon". If this is too slow, turn the control up slightly.

Knit and woven nylon and knit rayon slips do not require ironing. However, if you prefer to iron them, always use the lowest iron setting.

Hosiery

Careful buying and correct fit are two first-rate guarantees against short service and faulty construction in hose. One of the first decisions to make has to do with the style or type—whether to buy full-fashioned or circular-knit hose. Both have advantages, depending on the pocketbook and needs of the wearer.

Circular-knit hose are less expensive than the full-fashioned. They are knitted in tubular form and blocked to fit the leg. There is no seam at the bottom of the foot or no pure seam down the back. These hose tend to lose their shape and are apt to shrink.

Full-fashioned hose fit and hold their shape. They have even texture and color because they are not stretched unduly at large areas. They are knitted in a flat piece and then seamed. They are available in three lengths: short, medium, and long. The length for you to buy depends on your height and weight. There is an out-size stocking for the plump woman. There is also a specially knit, stretchy top for extra large thighs.

Sheerness of full-fashioned rayon and nylon hosiery is designated by the denier and the gauge, both of which will be given on the label. Denier runs from 15-30. Very sheer hose have a denier of 15 while service weight is 30. Gauge runs from 45-54. In this case, 54 is sheerest and 45 is service weight.

Hose should always be squeezed in mild, lukewarm suds and rinsed thoroughly. Roll hose in Turkish towel to absorb as much water as possible, then hang over a smooth rod to dry. Hose wear longer if washed after each wearing.

Panties, too, will wear longer if they fit properly. The style you choose is more or less personal preference. The elastic waistband varies with the style. Panties with a yoke front and elastic back are good for the woman who has large hips but does not take an extra size.

There are no set standards of sizing for panties. It is best to check the sizing method used by the particular brand you buy with the sales person.

Panties are usually made of rayon or nylon although wool, part-wool, and cotton panties are available. Rayon and nylon panties have four common fabric constructions: run-proof, run-resistant, run-resistant circular-knit, and plain circular-knit. Plain circular-knit fabric is not run-proof or run-resistant but it has more elasticity than the other fabrics.

Panties should have a reinforced or double-fabric crotch, neat stitching at the legs and waistline and sturdy, neatly finished lock-stitch seams. There should be no tacking at points of strain.

Panties should be laundered daily for longer wear. Squeeze them through mild, soapy water until clean. Rinse thoroughly. Roll them in a Turkish towel to remove excess moisture and let them dry. Do not dry rayon, wool, or nylon panties near a radiator. Rayon, silk, and nylon should not be hung in direct sunlight.

The importance of proper fitting brassieres cannot be overemphasized. Always have your brassiere fitted before you buy to be sure you choose the proper design for your figure.

Size refers to the around-the-body measurement of the bust. Cup size means depth and distance around the cup. These dimensions vary from A, the smallest cup, to D, the largest cup.

There are three types of brassieres: the bandeau, the brassiere, and the long-line brassiere. The type for you depends on your figure.

The bandeau is for the youthful, slender figure. It is very narrow and is composed mainly of bust sections. There is usually a narrow band below the bustline to anchor the bandeau.

The brassiere extends farther below the bust than the bandeau to give greater coverage and control. The band extends from 1-3 inches over the diaphragm. More control of the diaphragm as well as of the bosom is offered.

The long-line brassiere has a band below the bustline of sufficient depth to control the diaphragm. Some long-line brassieres fit over and hook onto the girdle for maximum control. The long-line brassiere provides a smooth midriff. Several lengths are available. Be sure to get the correct length.

For long wear, look for adjustable hooks or fasteners to allow for some shrinkage. Shoulder straps should be adjustable. Double straps are generally the most comfortable. Double-stitched, self-material straps wear best although fine, firmly-woven ribbon straps are serviceable.

Brassieres should be washed frequently either by hand or in the washing machine, depending on the material and the trim. Never iron elasticized sections.

Foundation Garments

Each type of foundation garment has certain advantages. Select one according to your individual figure and activities. It is a good idea to go directly to a trained corsetiere to assure correct fit and comfort.

Today's girdles control with comfort. Medium and lightweight, unboned garments are available for all figures. Girdles are usually suggested for the woman with a slim or average figure, but they can be fitted satisfactorily for women who wear size 40, due to improvements in elastics and other materials. If you want firm support of stays, however, you probably will prefer a boned girdle or corset.

Girdles come in several different types. The one-way stretch girdle has a crosswise stretch to facilitate putting on the garment and to give abdominal support. The two-way stretch has a front panel that stretches in one direction, usually vertically, and serves to keep the wearer very flat in front. The side panels stretch in both directions. Panels are often used in various ways to mold the figure. Each kind of stretch serves some special figure control purpose. It will be necessary to try on various types of garments to decide which your figure needs.

Teen-agers prefer pantie girdles because they allow freedom of movement and can be worn

without hose. Pantie girdles often have removable crotches and the legs come in various lengths. Sizes are marked small, medium, and large or by waist measurements.

Garter belts give little support but serve rather to hold up the stockings.

The corset is a boned garment. Some are wrap-arounds, some are step-ins, and others lace up the side, front or back. Corsets are for heavier women who need firm abdominal support. The all in one corset gives the smoothest, sleekest line because it gives support to the entire torso. For slimmer women, there are lightweight models made of fabric that is predominately elastic. The elasticized corselet, made with much firmer material, is for heavier women.

Foundation garments must be laundered frequently, both for cleanliness and to help them resume their original shapes and prolong wear. Elastic deteriorates from the effect of perspiration acid.

Before washing, close all openings and slide fasteners. Foundation garments may either be washed by hand or in the washing machine. Never soak. If soaking seems necessary to remove soil, never soak over 10 minutes. Instead, use a hand brush to rub soiled parts clean. Use lukewarm water and a mild soap or detergent. Rinse well and roll in a Turkish towel to remove excess moisture. Do not hang the garment by the hose supporters to dry because this stretches the supporters and pulls the garment out of shape. If you press the cotton and rayon panels to give a finished look, use a warm iron. Never press the elasticized parts with an iron.

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Good Things To Eat

Sweet Potato and Apple Casserole

Here's a new way to combine two favorite foods of fall—sweet potatoes and apples. The result is a delicious supper casserole which is especially good with roast pork or ham.

Cook the sweet potatoes in boiling salted water until just tender. Drain and cool. Peel and combine according to the following recipe:

6 medium sized sweet potatoes
2 tart apples, thinly sliced
½ cup water
½ cup brown sugar
3 tablespoons butter

Slice cooked sweet potatoes crosswise in ¼ inch circles. Cook sliced apples in water for 5 minutes. Drain, reserving juice. Grease a baking pan thoroughly. Arrange in it alternate layers of the sweet potatoes and apples. Sprinkle with brown sugar and add the reserved apple juice. Dot with butter. Bake in 350° oven for 30 minutes.

Cranberry Ice Cream Sauce

1¼ cups cranberries
1 cup light corn sirup
⅝ cup sugar
¼ teaspoon salt
Ice cream

Wash cranberries, drain thoroughly. Put into saucepan with corn sirup, sugar, and salt. Cook slowly over low heat, uncovered, until all the berries have burst and are translucent in appearance. Cool. Fruit and juice should have a thick sirup-like consistency. Serve over ice cream. Makes 8 to 10 servings.

Jam Cake a la Mode

1 cup cake flour
1 teaspoon baking powder
¼ teaspoon salt
¼ cup butter
½ cup light corn syrup
3 tablespoons sugar
1 egg, separated
⅓ cup milk
¼ teaspoon vanilla extract
¼ teaspoon lemon extract

Sift flour, measure; sift twice with baking powder and salt. Cream butter and gradually beat in half the corn syrup. Add the sugar, beating until smooth. Add egg yolks and beat well. Add sifted flour alternately with the milk to which flavorings have been added. Beat egg whites until stiff, gradually beat in remaining corn syrup until very thick. Fold lightly into the batter.

Pour into a jelly roll pan (12"x 8½"x½") which has been lined with waxed paper in the bottom and buttered around the sides. Bake in a moderate oven, 350° F., for about 15 minutes, or until a toothpick inserted in the center comes out clean. Turn out and leave waxed paper on until cold.

To serve, cut in 3 equal pieces, and put together with jam. Dust top with confectioners' sugar. Serve with ice cream. Serves 6.

Horseradish Molds

1 package lime or lemon gelatine
1¾ cups boiling water
2 tablespoons prepared horseradish
1 teaspoon sugar

Pour boiling water over gelatine and when all is dissolved, add sugar. Cool slightly, then add horseradish and pour into individual molds to set. Six molds.

Brown sugar sprinkled over cooked cereal will give a delicious butterscotch-like flavor, especially when a small piece of butter is added, too.

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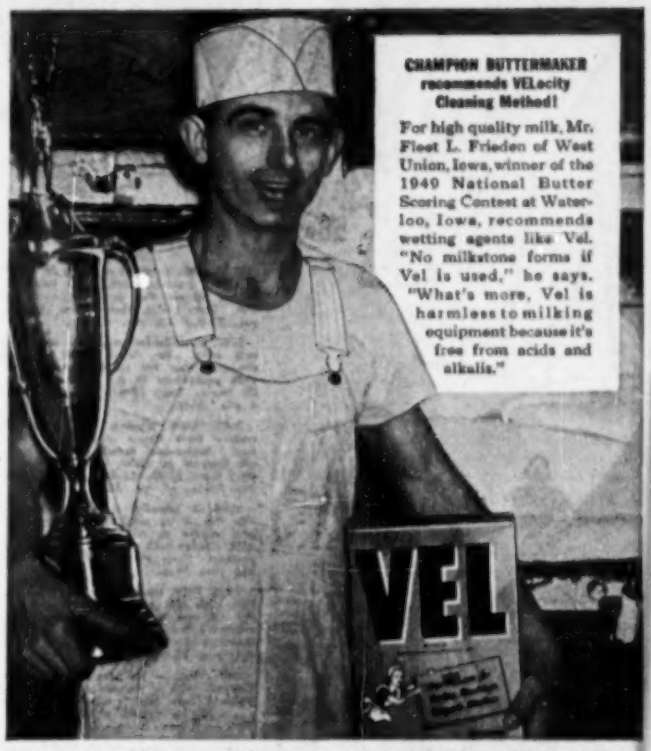

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2. Remove head and sealing rubber and brush them with Vel solution. Replace parts; suck through a pailful of boiling water or sterilizing solution.
3. Dismantle and leave parts to dry. Just before next milking, reassemble machine; suck through boiling water or sterilizing agent.

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Eggs keep their bloom! Keep better, even in storage! Hatching eggs unharmed! No buffing necessary! No other leading product as mild as Vel will do this job for you! Just put some hot water (160°) in a clean ash can and add one tablespoonful of Vel per gallon. Dip each basketful of eggs in this solution 4 or 5 times. Repeat in clean, cold water or spray thoroughly with hose.

IMPORTANT: Do not soak eggs. In all, eggs should be in the hot water no more than 10 to 15 seconds.

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2964

2964. This practical pinafore is easy-to-make, back-buttoned, and has unruffled flounces that are a pleasure to iron. Sizes 12-20, 36-46. Size 18, 3½ yds. 35-in.; 2½ yds. ric rac.

2097. Shoulder-buttoned for easy in and outs. The front panel swoops smoothly over the molded bodice and ends pockerfarina in the full skirt. Easily made. Sizes 12-20, 36-42. Size 16, 4 yds. 35-in.

2003. Waist-nipping darts and a smooth front zipper combine for flattery. Button-tab detail makes rhythmic repeats in collar, cuffs and pockets. Sizes 12-20, 36-46. Size 18, 3⅞ yds. 35-in.; ⅝ yd. 35-in. contrast.

2968. A smartly tailored shirtwaist like this is as much at home on the golf course as about-the-town . . . with action-built sleeves, two-timing pockets! Sizes 12-20, 36-46. Size 16, 4⅛ yds. 39-in.

2954. Paint up the new soft shoulder line with this sweetly scallloped yoke, cut in one with the latest snipped sleeves. Try a repeat performance at the hip! Sizes 12-20, 36-48. Size 16, 3⅛ yds. 39-in.

2477. Back-buttoned and puffed sleeved, with a demure eyelet trimmed yoke. "Cute chick" appliqué included . . . for a chipper child! Sizes 2-8. Size 4, 2 yds. 35-in.

2217. Adorable tot's frock! The front and back fall in loose gathers from cleverly shaped yokes. Panties included. Sizes 6 mos., 1, 2, 3. Size 2, 1⅞ yds. 35-in. fabric; ⅛ yd. 35-in. panties.

2590. Flaring princess dress comes with its own easily-made cape . . . a head start on the Easter parade! Sizes 2-10. Size 8 dress, 2⅞ yds. 35-in.; cape, 2½ yds. 54-in. fabric.

2952. Dutch cap . . . to top off the ensemble. Head sizes 19, 20, 21, 22. Size 20, ⅝ yd. 27-in.

NO PATTERNS EXCHANGED. Send 30 cents for each pattern to Pattern Department, Hoard's Dairyman, Fort Atkinson, Wis.

SPRING FASHION BOOK READY

Also send 30 cents for our new Spring Fashion Book just off the press. Order your copy now.

Let's Have a Spring Party

GLADYS HEMSWORTH

FEBRUARY brings the flower grower's catalogs to stir our hopes and imagination! It is time to begin planning our spring garden. Why not have a spring party and carry out the garden idea? It can be a party at home or a Ladies Aid party at the church. Often it is the planning that goes into the table decorations that makes a party a success. This can be true of your spring flower garden party.

For your table decorations use one or two bright colored toy pails, the kind youngsters use in a sandpile, to hold flowering plants. You can use the geranium or begonia that is blooming in your kitchen window. At either side of the plants arrange toy rakes, shovels, and hoes from the dime store. The number will depend on the length of your table. Tie three of them together with green baby ribbon and they will stand up for easy arranging. For placecards, use packages of seeds with the names of your guests printed across the top.

If you play games after the luncheon, let your prizes carry out your garden theme. Give for prizes, bulbs, a pot of ivy, or a new garden book.

This guessing game might add to the fun. Print copies for each guest and give a prize to the one who guesses most of the answers correctly:

1. What flower makes a bright day? Sunflower.
2. What flower calls children to school? Bluebell.
3. What flower sends them home? Four O'clock.
4. What flower ought to be in a circus? Dandelion or Elephant ear.
5. What flower might be in the next cage? Tiger lily or catnip.
6. What flower is a favorite with an unmarried man? Bachelor button or ladies slipper.
7. What flower could be used by fairies for a wand? Goldenrod.
8. What flower is best for winter fun? Snowball.

Your menu can be built around creamed chicken or tuna fish on hot baking powder biscuit and a fruit salad. For dessert, serve ice cream in flower pot-shaped paper cups. Fill the cups about three-fourths full of ice cream, sprinkle the top lightly with cocoa to look like dirt, and insert a flower or sprig of parsley in the center. Set the paper cup on a paper doily on a dessert plate.

For favors, give each guest a little rake or hoe or shovel. They are handy tools to have for repotting or transplanting plants.

Your party will be different and everyone will have fun, including you! That is part of the fun of having a party.

MUSIC SERVICE DEPARTMENT

1. **Easter Helper No. 50**—for every department of the church school. Dialogues, playlets, recitations with music, exercises, songs.

2. **Easter Alleluias**—An Easter service. Music with words. Recitations.

3. **Beautiful Easter Story**—A complete program for Easter.

4. **Trial to Triumph at Easter**—An Easter program for Sunday School—Scripture, songs, recitations.

5. **They Shall Live Again**—A beautiful solo for Easter or for general use.

6. **Easter Chimes**—Anthem, with baritone solo-trio, S.S.A. and duet T. B. and chorus.

7. **Trilogy for Organ**—Three numbers: "Meditation," "Autumn," and "Triumphal March," respectively Prelude, Offertory, and Postlude. Registered for Pipe and Hammond Organ.

8. **Oh, Promise Me**—De Koven. Medium voice favorite.

9. **Easter Parade**, Simplified — Irving Berlin. Large, easy to read notes.

10. **I Need Thee Every Hour** and **Sunshine In The Soul** — Simplified hymn arrangements.

11. **Ukulele Ike**, by Cliff Edwards—A collection of songs with ukulele accompaniment. Contains Always Chasing Rainbows, Sleepy Time Gal, Peg o' My Heart, and many others. Pictures showing how to play the ukulele.

12. **Music of the Masters**—Your favorite themes by the world's most beloved composers, as featured on records and in motion pictures.

13. **Sacred Piano Variations** — Abide With Me, The Palms, Now The Day Is Over. Not too difficult to play, but beautifully arranged. You will enjoy this collection.

14. **Open Saddle** — A popular western number with the lilting western rhythm featured by the best radio artists.

15. **A Dreamer's Holiday**—Still on Hit Parade and will be a popular favorite for some time.

16. **You're In Love With Someone**—From "Top o' The Morning," starring Bing Crosby.

MUSIC COUPON

MUSIC SERVICE DEPARTMENT 2-10-50
Hoard's Dairyman, Ft. Atkinson, Wis.

Enclosed please find $ ..... for which please send items checked.

No. 1	$0.35	No. 9	$0.35
No. 2	.10	No. 10	.30
No. 3	.10	No. 11	.75
No. 4	.10	No. 12	.60
No. 5	.60	No. 13	.75
No. 6	.10	No. 14	.35
No. 7	.75	No. 15	.35
No. 8	.40	No. 16	.35

Name .....

Address .....

Ball Point Ink Stains

Grandmother's method for removing ink stains needs to be brought up-to-date when a ball point pen is involved.

Although milk remains the best means for removing stains from regular ink, ordinary rubbing alcohol does the best job of eliminating spots caused by the inks used in ball point pens.

This advice on how to solve a modern problem comes from Edna Callahan, extension clothing specialist at Ohio State University. She offers, however, a word of caution. Rubbing alcohol will injure some types of rayon and also causes fading in some dyes. Because of this, she recommends trying the rubbing alcohol on a hidden part of the garment before attacking the stain.

If full-strength alcohol damages either the color or fabric, a dilute solution—1 part alcohol in two parts water—may be tried. Although this will not take the stain out as rapidly, it proves much safer for certain fabrics.

FREE SAMPLES

Write today for free samples of 100% Wool, 50% Wool-Rayon plaids, plains. Spring dresses, coats, suits, slacks, children's wear made easily with big savings at home!

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We print stationery for thousands of breeders all over the U.S.A. Distinctive style and personal touch. Pictures of your own breed for you to choose from. Write for stationery circular today.

HOARD'S DAIRYMAN Fort Atkinson, Wis.

Let's Talk Turkey About This Threat To Your Welfare

Some time ago the anti-trust lawyers from Washington brought suit to put A&P out of business.

They asked the court to order us to break up our stores into seven groups and sell each group to new owners; to sell our factories to still other new owners; to disband the Atlantic Commission Company; and to close all our central buying offices, including the National Meat Department, the National Dairy Department and the National Egg and Poultry Department.

Since that time, hundreds of thousands of farmers, as individuals and through their organizations, have been adopting resolutions, writing letters and running ads expressing their opposition to this suit.

The Farm Bureau Federation, at its recent annual convention in Chicago, adopted a resolution that did not specifically refer to the A&P suit, but condemned current interpretations of the anti-trust laws. The resolution said in part:

"Regulations should not be used to eliminate the possibility of integrated systems that are efficient and competitive. Such systems have the possibility of bringing about a badly-needed reduction in the margins that now exist between the producers and consumers of many items."

The reason farmers are taking a stand against this suit is because they recognize that it is a threat to their welfare; a threat to all agriculture; and a threat to our national economy.

Have you figured out how much this suit could hurt you?

A Threat To Better Distribution of Your Product

A&P is the largest and most efficient distributor of farm products.

Obviously, this attack is a threat to the welfare of all the farmers who sell to A&P, for they will have to seek new outlets for their products.

That will mean greater sales effort and higher sales costs for them.

But it will have an adverse effect on millions of farm families who don't sell to us at all.

For the great amounts of food we move into consumption, the great merchandising effort we put behind food sales, tend to strengthen farm markets and boost the income of all farm families.

Everyone wants the farmer to get good prices for his products. After all, we can't have a prosperous country unless we have a prosperous agriculture.

The price you receive for your product is the retail price, less the cost of distribution.

To maintain good prices to farmers, therefore, we must eliminate unnecessary in-between handling costs and operations.

A&P was founded and has operated for 90 years on the theory that the best way to attract and hold customers and build bigger markets for farm products is to give the public more good food for their money.

In order to do that, and at the same time do a good job for agriculture, we have had to work constantly to find better and less expensive methods of distributing food.

As a result, we have narrowed the spread between farm and retail prices.

The methods we pioneered have been adopted by other food distributors.

All agriculture has profited from them.

Today farmers get a larger share of the consumer's dollar. Their sales are higher. Their income is greater.

This suit threatens to wipe out many of these gains.

Don't you think agriculture will be hurt by this attack on its most efficient marketing outlet?

A Threat To Your Living Standards

The farmer is a consumer as well as a producer.

His "real" income is determined by how much he has to pay for all the things he buys.

This applies to food, as well as clothing and other necessities. For today, with the development of cash crop farming, practically no farm family produces all the food it needs.

A&P was the first of the nation's chain stores. Together with the other chains and mail order houses, it has worked to keep living costs down and living standards up.

The public has shown that they like our method of distribution by giving us and other efficient distributors their patronage. We are big because the public made us big.

If the anti-trust lawyers win this suit, a legal precedent will be established that can be used to attack anybody who tries to do a better job, give his customers a better deal, and grows big in the process.

Don't you think your living costs will go up if the company that has done most to keep them down is destroyed?

A Threat To Our National Economy

That is why we say that the big issue here is not whether A&P engaged in some practices that allegedly violated the anti-trust laws. We know we didn't. We know that we have always tried to run a good, clean business. Even if there were something wrong with our methods of operation, it wouldn't be necessary to burn down the barn to get rid of the mouse.

The real question here is whether the anti-trust laws, which were designed to preserve competition, can be turned around to reduce competition.

The real question is whether we are going to continue to encourage people to do a better and more efficient job; or whether we are going to let the lawyers in Washington blow the whistle on anybody who gets a little bigger than his competitor.

Frankly, we admit that nobody needs worry about the owners of A&P. They could make a great deal of money by breaking up this company and selling off the parts as the anti-trust lawyers wish.

But we think you and every other American should worry about the kind of economic policy the anti-trust lawyers are trying to impose on this country — not by way of Congress, as it should be, but by way of court decrees.

You may not sell to A&P or buy from A&P.

But this is your problem, too.

You don't have to believe us.

Think it over and talk it over with your friends and neighbors.

Decide for yourself.

THE GREAT ATLANTIC & A&P PACIFIC TEA COMPANY

begin feeding KAFF-A at 4 days

Kaff-A makes the job of starting new calves easy. Just as soon as colostrum feeding is finished you can begin replacing whole milk with Kaff-A. By ten days of age the calf can be entirely weaned from milk.

Each 25-lb. pail of Kaff-A helps save up to 250 lbs. of whole milk. You just dilute Kaff-A one to nine with water and feed as you would whole milk. More than ½ million fine calves have been raised this simple, economical way.

If you're feeding milk to any calf, replace it now with Kaff-A. Ask your feed dealer for a pail today.

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KAFF-A

FOR STARTING AND GROWING CALVES

Livestock Share Leases

(Continued from page 85)

operator. On the other hand, should the owner find management on his part undesirable or impossible for any reason, the livestock share lease would not be satisfactory unless handled for him by a farm manager.

Operator's Share of Income

The farm business must provide an adequate income for the operator. It would be unfair and uneconomic if the contribution of the landlord added little to the farm income and took away a good part of the operator's income. That raises a problem which is found in all rental arrangements — a bookkeeping problem in part — something which is not so much an imperfection of the type of lease, but of the customs which have grown up around it. That problem is to determine what is a fair rent or, in case of a livestock-share lease, what portion of the farm income should go to the land owner.

When we think of farm rent we often think only of a charge for the productive powers of the land. Even on a cash-grain farm more is involved. The farm house and the buildings, the fences, the drainage system if one exists, the water system, electricity, the roads, the school, etc., represent private or public investments which can make better farming possible and life more pleasant. The rent must provide a return to each of these investments. But instead of determining a return to each separately, the rent is generally figured in terms of productivity — cash or bushels of grain.

Thus perhaps neither tenant nor landlord knows whether the rent represents an overpayment for the use of the farm and its facilities, an underpayment, or whether it is a fair rent. This is especially true where custom sets uniform rental rates in a community. Although farms may vary greatly as to buildings and other improvements, their condition and their usefulness to the tenant, will be the same proportion of the crop on most farms where crop-share leases are used. For this reason custom can not be relied upon to set the rent for a farm if it is to be a fair rent.

These problems are commonly found in the crop-share type of lease. Since the livestock-share lease is really just one that has been fitted with a crop-share lease, it will be inequitable in any instance when the crop-share portion is out of line. The typical arrangement under this lease does not always result in the most equitable division of receipts nor in the best use of resources.

Decide What Each Contributes

When the livestock-share lease is used on a dairy farm the value of the land, the capital in form of buildings and equipment, and other contributions of the landlord may be equal to the value of the labor the operator contributes and his share of the capital for the farm as a whole. But there may be some important differences between the different phases of the business. For instance, the labor contribution of the operator could outweigh the contribution of the landlord in the dairy enterprise but be smaller in the grain enterprise. To the extent that the landlord installs labor saving equipment or improves building facilities to save him steps, the operator makes a smaller contribution of labor and the landlord is entitled to a larger share of receipts, but only in those enterprises in which he increases his contribution, or doesn't receive a share of the receipts in proportion to his contribution.

Many decisions are made jointly under the livestock-share lease but an imperfect use of the land, labor, and capital invested in the farm business may still result. If tenants outnumber the farms available for rent, farms with a livestock-share lease would probably involve a labor contribution on the part of the tenant which would exceed the landlord's contribution but the receipts might still be equally divided. The reverse might well be true where tenants had the upper hand. Even though both have agreed upon a given pattern of farming, the tenant still has some flexibility. If he stands to gain relatively more from one phase of the farm business than from another, he can divert a disproportionate amount of labor and care of it. These are all arguments for determining the division of income between the owner and the operator on an enterprise basis as far as possible.

Some of these flaws in the typical arrangement are corrected by adopting variations. The receipts on a dairy farm may be divided 50-50, but the landlord may furnish a milking machine or other machinery to offset the heavier contribution that the tenant makes through his labor. Yet this arrangement still represents a bookkeeping transfer of costs from one part of the business to another. Even if it isn't possible to reduce the size of the dairy herd or increase the acreage of crops, it may be more profitable even yet for the tenant to put a greater effort into the production of crops relative to that which he gives to dairy production.

The solution is fairly simple. It only requires that the contributions of the owner and operator be more nearly equal to their share of the income from each enterprise rather than for the business as a whole. The flaws we have discussed are not a part and parcel of the leasing system. They come about because of the special customs which have developed and tend to be continued. An equitable lease is theoretically possible. It should make no difference whether the contract is of a cash, crop-share, or livestock-share nature. All should result in an identical combination of resources if each were "perfect".

This makes it necessary if you are an owner or an operator under this lease, or any lease, to consider your farm business apart from the other farms and the customs of the community. Trying to fit your situation to the prevailing renting customs may be like trying to squeeze a large man into a boy's suit of clothes —it just won't fit.

Bossy's Chance for Twins

Twins occur once in about every 50 to 60 births among dairy cattle, and once in about every 200 births among beef breeds, according to Dr. W. G. Venzke of the College of Veterinary Medicine, The Ohio State University.

And triplet calves are even rarer, he says—occurring once in about every 3,300 births.

Quarrels do not last long if the wrong is only on one side.

Prompt treatment of MASTITIS with

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Brings quick results in production of salable milk

AUREOMYCIN has the broadest activity among antibiotics. It is effective against most of those organisms acted on by penicillin, as well as many other bacteria. A single infusion with AUREOMYCIN OINTMENT clears up staphylococcic as well as streptococcic mastitis in a high percentage of cases.

AUREOMYCIN OINTMENT has these advantages:

MORE EFFECTIVE THAN PENICILLIN
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COWS MAY BE MILKED REGULARLY
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SMALL, ROLLED-IN TIP INFUSION END
NO SYRINGE OR MILK TUBES
USUALLY ONLY ONE TREATMENT NEEDED
(If necessary, repeat treatments at 48-hour intervals.)

This product should be used in accordance with instructions in the package literature. Maintain good management to prevent reinfection.

For maximum efficiency in the use of AUREOMYCIN OINTMENT, as well as for best management practices and disease-control procedures, consult your veterinarian.

A folder on AUREOMYCIN OINTMENT will be gladly sent on request.

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Twelve Cash Prizes in Each Division

$50-$25-$20-$15-$10-$7-$6-$5-$4-$3-$2-$1

Senior Division — Open to all 18 years or over.
Junior Division — Open to those under 18 on March 18, 1950.

Three Family Cash Prizes

$25-$20-$15

To families with all members over 10 years entered — attaining highest average score. Family must include 3 or more members. **Parent must sign name at bottom.**

Information on Entries

Use this blank for single or family entries. Colleges, High Schools and 4-H Clubs write for Group Entry Blanks. Special Group Prizes. All entries in groups or families are also eligible for individual prizes. Do not send duplicate entries.

To qualify for cash prizes, the entry blank, with your complete placings on all five classes, must be mailed to Contest Department, Hoard's Dairyman, Fort Atkinson, Wisconsin, on or before March 18, 1950. Keep a copy of your placings — no entries returned.

Individual entrants must sign name and address at the bottom. Age to be given by those entrants under 18 years.

Family Names	Age	Ayrshire Placings	Score	Jersey Placings	Score	Guernsey Placings	Score	Brown Swiss Placings	Score	Holstein Placings	Score	Total
		1st 2nd 3rd 4th		1st 2nd 3rd 4th		1st 2nd 3rd 4th		1st 2nd 3rd 4th		1st 2nd 3rd 4th		

Each column headed "Score" and "Total" should be left blank. All entries must be mailed on or before March 18, 1950.

NAME..... P. O. ..... R. D. ..... State.....

SPECIAL OPPORTUNITIES

— Where Buyer and Seller Meet —

The rate for advertising in this department is 20 cents per word per insertion, except for "help wanted" and "positions wanted" advertising which is only 10 cents per word per insertion. Count address. "J. W. Foley, Route 12, Green Bay, Minnesota," is considered as eight words. Blind advertisements must be signed: "BOX Z, care Hoard's Dairyman, Fort Atkinson, Wisconsin" and count as 8 additional words. Count each initial or group of figures as a word. Cash with order. Copy must reach us four weeks ahead of date of issue. Send references with order to HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin.

DAIRY CATTLE

PIPER Bros. Farm—Purebred and grade Holsteins, production, type, pedigrees and health. Let us quote you prices on quality Holsteins. Phone 21F0. Watertown, Wisconsin. 3-*

REGISTERED Holstein calves. D. L. CAVEY, Elkhorn, Wisconsin. 11-*

FOR Sale—60 head high grade bred Holstein heifers. Can furnish springer cows and heifers. Also small heifers and calves of any breed. For information write or phone C. A. PAULSON & SON, Neillsville, Wisconsin. 5-*

LARGE selection of bred and springer Holstein heifers, also good young springer Holstein cows. Tested. CHESTER FROBERG, Valparaiso, Indiana. 3-3

KEATING Bros. Farm. Largest selection better Holstein and Guernsey, Bang's and TB tested, fresh and springing cows and first calf heifers in Wisconsin. Save time and expense. We ship on orders. TELEPHONE 414 Nights. Fort Atkinson, Wisconsin. 5-*

COMMISSION buyer dairy cows and heifers. JOHN PUFAHL, New London, Wis. 14-*

CHOICE Holstein heifer calves. Also yearlings and cows. W. STRAUSS, Watertown, Wis.

HOLSTEIN sire, excellent breeding. Three dams average 635 lbs. fat, 3X. JAKE SCHMIDT, Randolph, Wisconsin.

HOLSTEIN bulls for sale from tested dams. Herd average 520 lbs. fat. Herd sire, double grandson of Dunloggin Woodmaster Gold Medal sire. His 7 nearest dams average 800 lbs. fat. Charles Ward, QUALITY PARK FARMS, Hudson, Wisconsin. 5-6

KENYON Brothers Farm serving the dairy farmer for forty years. Large selection of choice Holstein cows and first calf heifers, fresh and close springers, service bulls, T.B. and Bang's tested. In carload or truckload lots. KENYON BROTHERS CO., Elgin, Illinois. Phone Elgin 1816. 1-*

DAIRY Cattle—Large selection of choice Holstein and Guernsey springers and fresh cows. Top quality heifers of all ages. T.B. and Bang's tested. STANLEY BURNIDGE AND SON, "Grand Hotel for Dairy Cattle." Elgin, Illinois. (Hotel Accommodational. Established in 1918. 7-*

WISCONSIN Holstein and Guernsey cattle; springers, fresh cows, bred heifers and yearlings; TB-Bang's tested. Truck load, carload lots. Large selection plus Seidman's service. Circular from. George Klein, DAIRYLAND'S PROGRESSIVE ACRES, Menomonee Falls, Wisconsin. Telephone 2706. 8-12

FOR Sale—Several registered Holstein bulls. Lifetime records 100,000 lb. cows 4% test. LEONARD SEYBOLD, Forest Junction, Wisconsin. 2-2

ATTENTION colormen and cattle dealers. We can furnish you Holstein heifers to freshen this fall. Cows of all breeds. Let us know your needs. We can supply them. BUTTEMA Farms, Bridgeport, Ind. Plainfield 2266. 20-*

HOLSTEIN and Guernsey cows and heifers for sale. Bang's and tuberculosis tested. Truck or carload lots. Write or call H. F. CLOW & SONS, Plainfield, Illinois. 10-*

YOUNG Guernsey bulls available out of tested dams, sons of Sterlingold Major #402109 by "Performer" whose four nearest dams average 904 lbs. fat. Charles Ward, QUALITY PARK FARMS, Hudson, Wisconsin. 5-6

CHOICE registered Guernsey heifers; three 2 year olds, 3 yearlings, 2 heifers seven months old. Calfhood vaccinated. Also a number of high grade bred heifers. OAKLAND GUERNSEY FARM, Mukwonago, Wisconsin. 10-*

REGISTERED—Guernsey calves. K. V. FARM, Elkhorn, Wisconsin. 11-*

DAIRY Cows—Largest selection of high class dairy cows in Michigan. One or a carload, we have what you want. Unusually good selection of registered Holsteins of all ages at the present time. We can deliver cattle anywhere. MERLE H. GREEN & SONS, Elsie, Michigan. 3-*

CATTLE MARKERS

DAISY Cattle Markers complete with chain, brass tag for horns and neck. Write for folder. GOLDEN ARROW FARMS, Dept. C, Huntington, Indiana. 10-*

USE Al-out-on Ear Tags, prevent livestock losses. Write INTERMOUNTAIN STAMP WORKS, Salt Lake 2, Utah. 20-*

STOCKMAN'S SUPPLIES

HORN weights, 80c per pair postpaid. Made in 4 sizes ¼ lb., 1 lb., 1½ lb., and 2 lbs. Tattoo markers $4.75 postpaid, includes set of numbers, bottle of ink, and full directions. We also carry complete line of ear tags, neck chains, veterinary instruments, supplies, serums, remedies; in fact, everything for the stockman. Write for free catalog. BREEDERS SUPPLY CO., Council Bluffs, Iowa. 19-*

FOR caked or congested udders, use Cuboss Liniment. Dairyman say, "Best ever, takes coke out overnight." Postpaid $1.00. W. G. INNERST, Cortland, New York. 1-4

FREE—40 page Breeders Catalog. Most complete farmer's catalog ever published. Write NASCO, Fort Atkinson, Wisconsin. 20-*

ARTIFICIAL insemination technicians' supplies, essential instruments and materials always in stock. Prompt delivery. New catalog. BREEDERS EQUIPMENT CO., Flourtown, Pa. 17-*

SPIDER in cows teats? Use Cuboss Teat Solution. Good for spiders on ends or up in teats. Guaranteed. Postpaid $1.00. W. G. INNERST, Cortland, New York. 1-4

LEARN how to tie out bulls, cows, calves, ponies, dogs, goats, quickly, safely, easily, for pasture and exercise. Free leaflet. Send postal. KLARWIN FARMS, Bottingham, Pennsylvania.

STOCKMEN'S SUPPLIES

INCREASE milk production. Use De-Wart-Em guaranteed, safe, economical, wart remover. Price seventy-five cents. ONTARIO CHEMICAL COMPANY, Ontario, Oregon. 1-*

PREVENT horns painlessly. Rub D-Horn-B dipset from tube onto horn buttons. No grease. No mess. Won't rub off. Safe, easy, painless. 19 treatment tube $1. ABL, Box 252-CE, Madison 1, Wisconsin. 1-3

ARTIFICIAL breeding equipment. Largest, most complete line. Everything from insemination tubes to professional inseminator's kits. Inseminators and farmers write for new free 64-page breeders' catalog. NASCO, Fort Atkinson, Wisconsin. 9-*

DAIRYMEN — "Buppi-E-moos" stops breeding failures! Four pounds, $6.40 postpaid. Guaranteed. Full information from MATHEWS SUPPLEMENTS, 20-C Riverside St., Rochester 13, N. Y. Also good opportunities for dealers and salesmen. Write today. 2-7

DEHORNING paste prevents horns growing on calves in 2 months old, on kids and rams soon as horn buttons are felt. Safe, easy to use. No blooding, keeps indefinitely. Bottle sufficient for 50 head, $1.00 prepaid. Guaranteed. Dept. B. TOMELLEM COMPANY, Calion Rock, Arkansas. 33-spl

ABORTION, Mastitis, other diseases. Full details —free literature. Money-saving prices on vaccines, bacterins, pharmaceuticals. KANSAS CITY VACCINE CO., Dept. W, Kansas City, Missouri. 1-spl

CALFSAVER. Stops calf scours quickly. One treatment brings relief. Not a drug or medicine. Calfsaver is an organic vegetable compound, a feed calves take readily. Used for years on our own farm in Oregon's largest Registered Jersey herd. It has never failed. We have never lost a calf from scours. End your calf scour worries forever. Our neighbors swear by Calfsaver. You will too, or your money back. Chge of twenty treatments $6.00 prepaid. You be the judge. Or send $1.00 for trial size (two treatments) prepaid. GORDON FARMS, 628 S. E. Hawthorne, Portland 14, Oregon. 3-3

FARMS FOR SALE

DAIRY farm for sale consisting of 280 acres located 8 miles north of Lancaster and 9 miles southwest of Fennimore to the farm. The dairy barn is 36x140 semi-basement. There are 46 stanchions besides cow, calf and bull pens, all with drinking cups. The grain bins are above the feed room. The silo is 14x46. Other barn and sheds for young heifers. There is 100 feet of corn cribs, one hog house has 16 pens, one machine shed 36x50 and several buildings besides a good 10 room house. The farm has been kept well fertilized for several years and it is a highly productive farm. I have balance sheets of production for several years back to show anyone really interested. The farm will be sold on reasonable terms. Present tenants will remain on place until March 1, 1950. If interested, inquire of DR. WILSON CUNNINGHAM, Platteville, Wisconsin. 3-2

PERMANENT year round pastures are being rapidly developed in South Carolina and land suitable for permanent pastures is still cheap. You can let the cattle gather their own feed and save the cost of labor for harvesting and feeding. If you are interested in good farm lands suitable for year round permanent pastures, see or contact BRADHAM REALTY CO., Realtors. "We Specialize in Farm Lands, Small and Large Tracts". Phone 48, P. O. Box 450, Sumter, S. C. 2-2

CHOICE of five Wisconsin equipped farms for spring possession. All with electricity some modern conveniences. 80 acres $8,500; 76 acres $10,500; 154 acres $15,275; 160 acres $18,000; 100 acres $19,000 including personal property. Full information and photos upon request. BAKER EZ12, St. Croix Falls, Wis. 3-2

PRIDE of the Guernsey world . . . beautiful 490 acre dairy, hog, and grain plant within 100 miles Chicago, complete with 150 registered Guernseys valued at $75,000, all up-to-date farm machinery and dairying equipment, growing crops. Graceful colonial residence in grove, 5 modern homes for staff, full complement buildings carrying over $100,000 insurance. $1,000 weekly income reported for 1948. Priced considerably below conservation value estimate, $135,000 complete, $60,000 down. MARVIN C. JONES, 1409 Consumers Bldg., 220 South St., Chicago 4, Illinois.

VIRGINIA farms, estates, tourist camps, service stations, city property, free catalog. ELLIOTT E. BROOKS, Fredericksburg. 4-*

305 ACRE, completely equipped, Florida dairy farm without cattle on Gulf Coast. Permanent pasture, year round grazing. Terms. BOX 420, care Hoard's Dairyman, Fort Atkinson, Wis. 19-*

STROUT'S Golden Anniversary farm catalog—over 2800 outstanding bargains, 32 states coast to coast. STROUT REALTY, 7 So. Dearborn St., Chicago 3, Illinois. 1-4

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SAVE money. Buy hardiest and best yielding alfalfa and grass seed direct from SAM BOHI & SONS, Box 751, Rapid City, South Dakota. Free catalog. 2-5

ALFALFA seed—Free samples and handbook, "How to Grow Alfalfa". Lowest producer to consumer prices. ALFALFA SEED MARKETING SERVICE, Box 11797T, Salina, Kans. 1-*

CERTIFIED Blue Tag Resclect Clinton oats $1.25 bushel. Certified Blue Tag Hawkeye soybeans $3.00 bushel. GEORGE RUTH, Onawa, Iowa. 2-2

SEEDS AND PLANTS

AFRICAN violet 25c. Sent by guaranteed mail. Sturdy, blooming-size, 6-month-old, "Pink Sensation," "White Queen," or "Wisconsin Blue Wonder." Enclose 25c stamps or coins, plus 15c postage and handling. Money back guarantee. If ordering 3 send only $1. No C.O.D.'s on single orders. OWEN NURSERY, Dept. 5001, Bloomington, Illinois. Clip this.

ALFALFA, U. S. grown, $23.90 per bushel; Hardy Grimm $27.90; Alsike Clover $22.80; Scarified Sweet Clover $12.85; New Wonder Hubam Clover $14.50; all 60 lb. bushels. Red Clover 99% crop pure, contains some alfalfa, $24.90, 90 lbs. Hybrid Seed Corn, tested, $4.25 bushel. New Domestic Brome $7.80 bushel. Korean Clover $2.15 bushel. Prices low many other items including Ladino Clover, Alta Fescue, Birdsfoot Trefoil, etc. New Certified Clinton 88, Clinton 11, Andrew and Beaver Oats. Our seed reclaaned; tested. Guaranteed satisfactory. Sold subject your 60 day test. Write for free samples and complete 1950 catalog. Hurry, scarcities exist. AMERICAN FIELD SEED CO., Dept. 255, Chicago 9, Ill. 3-3

GUY Montana and Canadian alfalfas. Hardiest, produce heavier yields. Write for early prices direct to farmers assuring lowest prices. Certified and uncertified Grimm, Ladak, Ranger, Buffalo. All clovers and grasses. MONTANA SEED COMPANY, Bozeman, Montana. 24-4

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STRICTLY Northern grown alfalfa $22.20 bushel and up. Sweet Clover $11.40 up. Write for free samples and prices on Grimm, Cossack, Ladak and Ranger Alfalfas; Bromus Grass; Red, Alsike and Ladino Clovers. We quote good clean seed complying with pure seed laws of your state. GRIMM ALFALFA ASSOCIATION, Fargo, N. D. 500 Cooperating Growers. 2-2

ALFALFA seed, $20.85, clover, $23.85; Certified hybrid seed corn, flats, $5.50, all per bushel, also other bargains. Postal card us today for circular and samples. HALL ROBERTS' SON, Prairie, Iowa. 2-2

GRIMM Alfalfa seed for sale. Send postal for sample and folder giving full details. TRI-ANGLE HEREFORD RANCH, Cottonwood, South Dakota. 1-*

CERTIFIED Andrew oats. New release. CLARENCE FELTMAN, Young America, Minn. 3-2

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ENGLISH Shepherd puppies, heelers, watchdogs, companions. D. W. YODER, Route 3, Nappanee, Indiana. 3-2

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DALMATION pups. Three months. Write G. M. BURRIER, Middletown, Maryland. 3-2

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LIQUID manure pumps. We manufacture the Tillamook liquid manure pump and the flexible chain harrow. STEINBACH IRON WORKS, Tillamook, Oregon. 23-*

COW stalls, pens, steel windows, hay carriers, steel fence post, post pullers. Immediate shipments. STANDARD EQUIPMENT, 13C., Bel Air, Maryland. 16-*

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POSITIONS WANTED

FARM manager, 31 years of age, small family. Presently managing 800 acre dairy farm. Experienced with Holsteins and Guernseys. Owner selling. Excellent references. BOX 483, care Hoard's Dairyman, Fort Atkinson, Wis. 2-2

MARRIED man wishes position as operator or herdsman, thoroughly experienced dairy and livestock. Raise excellent calves. Steady and reliable. Available on proper notice. BOX 484, care Hoard's Dairyman, Fort Atkinson, Wis.

MARRIED man with know-how and will-do wants job as operator, share or percentage. Experienced, steady, and dependable. Available on proper notice. BOX 485, care Hoard's Dairyman, Fort Atkinson, Wisconsin.

HELP WANTED

WANTED—Herdsman for Maryland farm. 65 cows, 500 lb. fat average, herd increasing. All buildings and equipment first class and modern; employees houses modern and attractive. No labor problems, we have plenty of good willing help. No mastitis, Bang's or breeding problems, all records up-to-date. This is a well managed herd and offers excellent opportunity for qualified man who can hold our high standard and produce milk profitably. Owner knows this business thoroughly and is available for conference but is not active in daily management. Only men of proven ability need apply. Employment can begin any time between now and March 1. Position of farm manager will be considered. Applications strictly confidential. BOX 472, care Hoard's Dairyman, Fort Atkinson, Wisconsin. 2-4

WORKING dairy farm manager. Two hundred acres, twelve miles out of Baltimore, Maryland. Purebred Guernsey herd. BOX 488, care Hoard's Dairyman, Fort Atkinson, Wis. 3-4

WANTED—Woman for general housework. Modern farm home, four in family. Steady, good home for right person. State wages and experience. MRS. HAROLD TURNER, Woodstock, Illinois.

HELP Wanted—Male. General maintenance man on farm near Kenosha, Wisconsin, to do electrical work, carpentry, gas and electric welding, plumbing. Will not tolerate drinking. Permanent position $125 per month in addition to room, board and laundry taken care of. Write CHRIS PASCHEN, 1450 Clybourn Avenue, Chicago 10, Illinois.

WANTED—Married couple March 1st experienced in general dairy farming to work and manage 118 acre farm, located near Racine. Registered Brown Swiss cattle, good buildings, machinery, modern house, furnace and bath. Reply to JOHN OSTER, 928 Orchard St., Racine, Wisconsin. 3-2

EXPERIENCED man for large Guernsey and Holstein dairy farm. Graham graduate preferred. References required. FAIRVIEW FARMS, Troutdale, Oregon.

WANTED—A man between 25 and 40 years to do general farm work and caring for dairy barn. Write to SHEBOYGAN COUNTY HOSPITAL, P. O. Box 649, Sheboygan, Wisconsin.

EXPERIENCED man for purebred Holsteins and general farm work. Southeast Wisconsin. State wages expected. BOX 487, care Hoard's Dairyman, Fort Atkinson, Wisconsin.

FARM manager wanted. Give experience. Married or single. Near Antioch, Illinois. Bank recommendations needed. Write F&S FARMS, 2353 N. Cicero Avenue, Chicago 39, Illinois.

SALESMEN WANTED

DEALER and salesmen. To sell full line of machines and supplies to dairy farmers for one of the oldest dairy supply houses. Excellent opportunity for individuals well established in their respective territories. Write to BOX 432, care Hoard's Dairyman, Fort Atkinson, Wisconsin. 20-*

SALESMAN, between 25 and 40 years of age, married, to sell top line ironer, dryer, and electric hot water heater to dealers in twenty counties in Northern Indiana. Straight commission. Reply BOX 486, care Hoard's Dairyman, Fort Atkinson, Wisconsin.

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WE pay highest prices for your empty cotton and burlap feed bags. Write for our quotations. THE DAYTON BAG AND BURLAP COMPANY, Dayton, Ohio. 1-*

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FARMERS! The new 1949 edition, Badger Farm Business Record (you buy once in a lifetime) ready. Holds important transactions for life. Loose leaf system, simple; illustrated, cash, accrual basis. $3.00 at dealers or postpaid. Inspection with refund guarantee. BADGER BUSINESS SERVICE, 1620 Jackson, La-Crosse, Wisconsin. 21-*

NEW sparrow trap. Rid your premises of disease-carrying, crop-destroying sparrows. Elevator-type, humane, factory-built, guaranteed. Nothing like it. Write for money back trial offer and free literature. RICHWOOD BOX MILL, 902 Detroit Lakes, Minnesota. 21-*

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WOMEN to sew our readi-cut "Rap-A-Round." Spare time—easy profitable business. HOLLYWOOD MFG. CO., Dept. H-2, Hollywood 46, California.

Cows Stay Clean With Electric Trainers

IT MAY not be possible to get cows completely housebroken, but electric trainers will persuade them to keep remarkably clean and save a great deal of work for the dairyman.

Those are the findings of A. M. Einerson in extensive tests of the electric trainers at the University of Wisconsin electric research farm.

The electric trainers are, basically, a coat-hanger-like contact suspended just above the cow's shoulders and connected to an electric fence controller. If the cow is too far forward in the stall when she humps up, she gets a mild shock and backs up. Manure falls into the gutter instead of on the platform.

The shocks are too light to harm the cow in any way. The trainers have a number of advantages. Besides keeping cows and barns cleaner, and so reducing labor, they allow the use of longer stalls. Dairymen have known for some time that long stalls are desirable; cows are more comfortable in long stalls; there are probably fewer udder injuries and hence less mastitis. But without the electric trainer it has been difficult to keep long stalls clean enough, particularly for small cows.

In the tests Einerson used a herd of 17 cows, as alike as possible as to size, temperament, and stage of lactation. No cows under two years old were included. Before the actual test period the trainers were adjusted, the cows trained, and thoroughly cleaned. Cows which did not react readily to the trainer because they had a heavy coat of hair were clipped at the shoulders. Rear quarters of all cows were clipped.

During the 28-day test periods the cows were not brushed or cleaned in any way, except for washing udders just before milking. Observations and records of each cow were made twice daily; before barn cleaning in the morning and before evening milking. The records include the weight of manure dropped on the stall platform, whether the platform was wet from urine, cleanliness of the cows, and general observations such as whether the trainers made the cows nervous or whether cows disregarded the trainers.

In addition, pictures were taken each week to help in judging the cleanliness of the cows, the platforms, alley, and where the cows stood or lay down on the platform.

After one 28-day period the cows were changed to different sized platforms. After one week, during which the cows were vacuumed, brushed, their tails washed, and the trainers adjusted, another 28-day test is made.

Results of both test periods showed that slightly more manure was dropped on the platforms of 6-foot stalls than on 5½-foot stalls, but in either case the amount was very small. The smaller cows dropped more manure on the platforms than larger ones, but they usually lay down in front of it and so were not any dirtier or more stained.

The number of cow days that manure or stain was found on the cows was higher for the long stalls, but again the amount for either was so small that there was no significant difference.

Among other figures, the test results show that cows in the long stalls dropped only about three pounds of manure out of 100 on the stall platform; those in the short stalls dropped less than one pound out of 100 on the platform. On the average, cows in the long stalls were free from manure or stains about nine days out of 10; those in the short stalls 19 days out of 20.

No difference, from the photographs or ordinary observation, was found in cleanliness of the cows in the two different sized stalls. However, the cows stood and lay farther from the gutter curb in the long stalls and seemed to be more comfortable and less apt to be injured.

Einerson concludes that if electric trainers are used, dairy cows can be kept as clean in stalls with 6-foot platforms as those with 5½-foot platforms. The length of the stalls, of course, should be adjusted to the size of the cows but it can be longer than previously recommended.

Einerson believes that the cow trainer will affect barn design, in addition to saving work, making high quality milk production easier and helping to prevent injuries. He notes that many Wisconsin barns now in use are too narrow to permit remodeling with longer stalls if the center driveway is to be used. But adding a mechanical barn cleaner will allow the center alley to be narrowed several feet, permitting longer stall platforms.

Cost of installing trainers is low compared to the advantages—probably between $1 and $2 per cow for all materials except the fence controller.

Using Radio Cars

In Britain the artificial insemination of both dairy and beef cattle is growing rapidly. One of the main administrative problems is to keep the men who actually do the insemination advised, as quickly as possible, of cows that have come into service. Normally, therefore, before he leaves a particular village, the inseminator will phone up his headquarters and ask if there are any other cows that have been reported in that neighborhood before he leaves it.

The Cambridge Cattle Breeders' Association, which runs one of the best artificial insemination centers in Great Britain, has gone one better and has fitted the cars of its inseminators with radios similar to those found in radio controlled taxis. This saves time and the trouble of trying to find a telephone in the more remote rural areas.—Leon G. Davis.

A little girl was proudly showing her playmate her new home.

"This is my daddy's den," she said. "Does your daddy have a den?"

"No," replied the other little girl, "he growls all over the house."

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(3rd on the Honor List in 1946)

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The bull, Ear Tag 8721, born October 30, 1949, out of the cow pictured above, and sired by the "Excellent" Gold Medal Sire, Hallmar Progressor, is a herd sire to be proud of.

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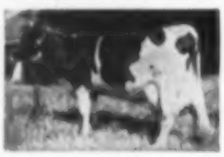

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This month we offer a son of this cow which was born September 21, 1949 and sired by Carnation Royal Imperial. This calf is marked 60% white, has a deep body, straight back, good legs and is well grown. He is priced at $350.00 with express paid anywhere in the U.S.A. For pedigrees write:

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Born in February 1949. Both by Pabst Ethel Wayne, 4% proven sire, whose A.R. daughters are making exceptional records and testing from 3.7 to 4.1%. No. 1 Dam, Lashbrook Leah Ormsby (V.G.), 537 lbs. fat in 305 days, 3.7%. Nine nearest dams ave. 4% test. No. 2 Dam, Lashbrook Patricia Ormsby, 452 lbs. fat, 305 days, 3.7% test. Both extra good individuals, priced $500 and $500 respectively. Send for pedigrees and photos.
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Well bred calves, good type from dams up to 700 lbs. fat 2X. Farmers' prices. Write today for complete information.

Route 1 **VERPANA FARMS** Sharon, Wis.
LOWELL NELSON, Manager
DR. and MRS. PAPE, Owners

90 Head of Dairy Cows
HOLSTEINS, GUERNSEYS and HEIFERS

for your selection on hand at all times. Come to Dodge County, Wisconsin, 50 miles northwest of Milwaukee, where heavy producing Holstein cows are raised from foundation purebreds. Priced to meet your demands, one or a carload. We have transportation for delivery to your farm.

Write or Phone

BEN W. NEHLS, Route 3, Juneau, Wisconsin

WISCONSIN DEPARTMENT OF PUBLIC WELFARE

With the best of foundation stock and over 25 years of Burke and Ormsby linebreeding, with complete herd production records kept in every herd, and combining production and type by careful selection in our breeding program, we have been able to obtain outstanding results. We invite you to visit our herds. If interested in a good young sire, write for our bull list.

W. W. KINYON, Farm Supervisor
STATE DEPT. OF PUBLIC WELFARE—
STATE CAPITOL
Madison, Wisconsin

HOLSTEIN CATTLE

Purebreds and grades, many of Pabst, Carnation or Rag Apple blood lines. Selected from the best herds in the state of Wisconsin where better purebred sires have been used for over 30 years. We cover fifteen of the leading dairy counties in Wisconsin.

Services - W. L. Baird - Arthur Bennett - Harvey Swartz - Ed Wegner - Frank Swartz - Don Stoufer at your disposition—can handle orders for truck or carloads. Telephone 3644, Waukesha, Wis., or write for information to

INTER-COUNTY DAIRY CATTLE ASSOCIATION
Waukesha, Wis.

DANE COUNTY HOLSTEIN BREEDERS ASSOCIATION

Offers special sales service on grade and purebred cattle from one of Wisconsin's largest dairy counties where over 10,000 cattle are on DHIA test and more than 15,000 are bred artificially.

For information write
FRANK E. CAIRNS, Fieldman
353 W. Johnson St., Madison, Wisconsin
Office phone Dial 6-0513 Residence Dial 3-5538

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If in need of good dairy cows, selected from Wisconsin's oldest and most thickly populated Holstein territory, write FRANCIS DARCEY.

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offers sales service on grade and registered cattle from one of Wisconsin's best dairy counties, quality cattle from high producing herds. Fieldman's service.

ARTHUR H. WEINER, Secretary and Fieldman
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Cows . . . Heifers . . . Serviceable Bulls
For good Holsteins, either registered or grades—one or a carload—come to Jefferson County, Wis. Let us quote you prices on quality cattle from healthy herds. Free fieldman's service.
JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N
Fort Atkinson Wisconsin

Choice Holsteins For Sale

Come to the Fox River Valley for good Holstein cattle, either grade or purebreds. We have eight counties in which to select from in the heart of America's Dairyland. Fieldman service.

FOX RIVER VALLEY
HOLSTEIN-FRIESIAN ASSOCIATION
Math Mautzmann, Fieldman, Kaukauna, Wis.

SELECT
CHIPPEWA COUNTY
DAIRY CATTLE
80,000 HEAD
Buyers Guides

Write . . .
CHIPPEWA CO. DAIRY CATTLE BREEDERS ASSN.
Chippewa Falls, Wis.

SPRINGBANK MERCEDES R. A. SOVEREIGN
His 15 nearest dams average 877.1 lbs. fat, 4%.

Rag Apple breeding at its best. Type, Production, Test back of every bull calf. Prices reasonable. Write R. A. Page, 500 Peshtigo Ct., Chicago 90, Illinois.

UNADILLA FARM Chadwick, Illinois

Carnation Princess Hello

The dam of our main herd sire, "Carnation Keyman," is pictured at the left. She is "Carnation Princess Hello." She and her full sister went through the 1948 season undefeated anywhere as produce of dam. They were also honorable mention All-American produce of dam. Place a son of "Carnation Keyman" at the head of your herd for production and type. **Send for bull list.**

CENTRALIA MILK FARM
Story City Iowa

Carnation Keyman

HEAVY PRODUCTION WITH HIGH TEST

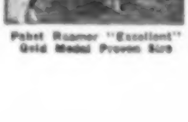
Needed now as never before. You can buy such bulls here in one of America's finest herds numbering 200 head. They have the proven power to transmit it into your herd and you are taking no chance. Prices are lower if bulls are taken when young. Farms are located on Highway 45 just south of the Wisconsin and Illinois State line. Come to see us or write us. Pedigrees, prices, and full description sent to those who write us.

RAVENGLEN FARMS R. F. D. 1 ANTIOCH, ILLINOIS

TYPE WITH PROFITABLE PRODUCTION

We have some exceptionally good young **Sovereign-Dictator bulls for sale.** They are out of good producing daughters of our Carnation Governor Dictator and sired by Springbank Rag Apple Sovereign, he line bred to Johanna Rag Apple Pabst. One of these young bulls will bring both good type and profitable production to your herd, and you can buy him at a very reasonable price. **We also have a few high class registered Holstein heifers for sale.** Write us today, or better still, come to the farms to see what we have to offer.

HAWTHORN FARMS Libertyville, Illinois



Pabst Roamer "Excellent"
Gold Medal Proven Sire

SONS OF PROVEN SIRES AVAILABLE

Wisconsin Admiral Burke Lad's (V.G.) transmission of high production is inherited by his sons, Pabst Roamer (Ex.) and Pabst Regal (Ex.), as shown by these averages of their daughters—Burke's 64 daughters average: at 2 yrs. 4 mos. 17,094 m. 3.67% 625.2 f. 3X. Pabst Roamer's 40 daughters ave.: at 2 yrs. 4 mos. 17,939 m. 3.7% 661.9 f. 3X. Pabst Regal's 14 daughters ave.: at 2 yrs. 3 mos. 17,996 m. 3.77% 676.7 f. 3X. **Young bulls carrying Burke breeding are available to head your herd. Semen also available. Write for terms.**

PABST FARMS, Inc. Act. & Mng. Oconomowoc, Wis.

Ready for Service

A vigorous, splendid type bull, born February 1, 1949. Seven nearest yearly tested dams average Fat 883, Milk 22774, test 3.88%. There may be better prospects, but not many. Moderately priced.

Sire is a son of Carnation Imperial Inka Premier. Dam is a daughter of Carnation Governor Imperial, from a 1015 lb. daughter of Matador Segis Ormsby, 74 daughters from 800 to 1402 Fat.

Write today for full information. First come, first served.

THE W. T. RAWLEIGH COMPANY
Freeport, Illinois

QUALITY BULLS

Two April calves sired by Carnation Majestic. Our dams are all Carnation bred for years. The dams of both calves are real, both for type and production. Some nice fall calves coming on, mostly by same sire.

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C. E. HURLBERT Stockton, Illinois

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Individually selected Holstein dairy cattle. Top grade springing and fresh cows, also open, bred and springing heifers at

H & H FARMS Frankfort, Illinois

EXCELLENT

Sire: **Pabst Bonnie Burke,** classified Excellent. Dam: A very good ¾ sister to the dam of **Spring Farm Sovereign Supreme,** Reserve All-American bull calf, 1946; All-American Junior Yearling bull, 1947; All-American 2-year-old bull, 1948; nominated for All-American 3-year-old bull, 1949. Her best record 707.8 fat; lifetime production currently 103,405 lbs. milk 3,704.6 fat. Calf born 8-9-49. Write for details.

SCOTT MEYER
807 Broadway Hannibal, Missouri

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High producers, excellent grazers, hardy and rugged, large size, quiet, docile temperament, surplus stock in great demand. Free literature and breeders list.

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502 Grove St., Peterborough, N. H.

A BULL YOU WILL LIKE

FOR SALE—Rockingham Foremost born April 8, 1949. Sire, Rockingham Reliance (Our Senior Herd Sire) has 6 A.R. daughters, two PR sons. His dam, McDonald Farms Constance 663 lbs. fat GG, 745 lbs. fat DD, one A.R. daughter. "Constance" was Jr. Ch. female at the Eastern States Exposition and the Dairy Cattle Congress in 1939. Write today for complete information.

D. G. TENNEY, Owner, Salem, New Hampshire
ROCKINGHAM FARM

FOREMOST GUERNSEYS
FOREMOST IN NAME and BREEDING FAME

Head your herd with a Foremost bull that is backed by generations of the breed's best bloodlines—a bull that is linebred for both type and high production. We always have for sale some very desirable young bulls. Write us or better still come to the farm before you buy your next herd sire.

FOREMOST GUERNSEY ASSOCIATION, INC.
Hopewell Jct. (Duchess County), New York
J. C. Penney, Pres. W. K. Hepburn, Mgr.

FOR SALE — BULL

born April 1949. Dam made 8032M 424F Sr2 305 days on 2 times machine milking and has three high record full sisters. Sire is Coldspring's Romulus Anchor, satisfactorily proven with 9 AR daughters and sire of Grand Champion Female 1946-1947 Toronto Winter Royal Fair. Also a few choice heifers.

TARBELL GUERNSEY FARMS
Smithville Flats New York

OUTSTANDING BULL FOR SALE

Mount Ararat Noble Hyperion, born August 18, 1948 is a show prospect backed by excellent production. His sire, Oscar Mustel's Ethan, combines production, very good type and great udders in his pedigree. His dam, a show heifer as a two year old in 1947, has an excellent record and is on test again. She is by Mount Ararat Royal Valor, one of our proved herd sires whose daughters are doing very well indeed. Write for complete information.

MT. ARARAT FARM, Port Deposit, Maryland

1904 - FRITZLYN FARMS - 1950

FRITZLYN ROYAL KING

Dropped 4/3/49. Sire: Fritzlyn Valor's Successor, son of Valor's Fashion, 53 A.R. daughters. Dam: Fritzlyn Faithful, 3 A.R. records, two over 700. Dam of Fritzlyn Royal King, Fritzlyn King's Jeanette, sold for $6000. M. 13,750. F. 610. Jr. 2 on test again in 268 days M. 15,566. F. 667. Will finish with about 860 fat.

FRITZLYN FARMS, Pipersville, Pennsylvania

REGISTERED GUERNSEYS

We have some very good bull calves for sale out of high producing cows by sons of Langwater King of the Meads and Meadow Lodge Rex's Climax. Dams from 564 to 782 lbs. fat. Write or visit our farm.

BEULAH LANE FARM, Lake Beulah, Wis.

Young Bulls For Sale

Backed by type breeding and records. We are offering for sale sons of our herd sires, Green Meads Proud Gallant, Sierra Manor Magnet, R. Lane's Proud King. Sires' dams have records from 614 to 926 fat. Also some choice heifers. Write today for full information.

R - LANE FARMS, BASSETT, WISCONSIN

J. H. Rustman, Owner Roy Seitz, Manager

GUERNSEY SALES SERVICE

WANT TO BUY GUERNSEYS?

We know Guernsey herds and breeders in Wisconsin. We usually have herds listed for sale, both registered and grade. We handle dispersal sales.

WISCONSIN GUERNSEY BREEDERS' ASS'N
Box 14, Waukesha, Wisconsin
Geo. D. Britts, Sec. Maynard Matthys, Fieldman

GOOD GUERNSEYS FOR SALE

Barron County is a choice field to find those production bred cows and heifers in the Guernsey breed. Thirteen full time testing associations operating within the county. Buyers assisted by Guides and Sales Service. Let us fill your order.

BARRON COUNTY
GUERNSEY BREEDERS ASSOCIATION
BOX 474, BARRON, WISCONSIN

Quality Registered GUERNSEY FEMALES AND BULLS. Choice grade, fresh and springing cows and heifers all ages. Some direct to breeders to buy. Several hundred herds to select from. Fieldmen will assist you. T. B. and Bang's tested. WAUKESHA COUNTY GUERNSEY BREEDERS' ASSN., Frank Fox, Jr., Sec'y, Waukesha, Wis.

SERVICEABLE

GUERNSEY BULLS

Sired by McDonald Farms Hunter. Dams of some have advanced registry records over 600 lbs. fat. Well grown, good color. Priced to sell.

DALE E. RUNDELL, Platteville, Wisconsin
Farm at Livingston

GUERNSEY BULL CALVES

We have some very good bull calves for sale. They are bred for production and type. Prices reasonable. Nationally known and proven bloodlines. Write for prices and information. Herd accredited.

HOARD'S DAIRYMAN FARM
Fort Atkinson, Wis.

BETTER GUERNSEYS

Purebred and grades with outstanding-production and type. Purebred bulls that will increase the value of your herds. T.B. and Bang's tested. Service to buyers is free. JEFFERSON CO. GUERNSEY BREEDERS' ASSN., Fort Atkinson, Wis.

ALL BREEDS OF DAIRY CATTLE

Pure breds and grades. Foundation animals and outstanding individuals for both breeding and show my specialty. MID-WEST SALES SERVICE, Louis Seitz, 11133 W. Bluemound Rd., Wauwatosa 13, Wisconsin.

FOR SALE Grandsons of Langwater King of the Meads and Langwater County Squire and out of Bournedale Rex and Langwater Africander bred dams.

TOM COOPER FARM, Ardmore, Okla.

FINE YOUNG BULLS

ALSO SOME BRED COWS

available at fair prices.

Sired by: GREEN MEADS LEVITY ACE
GREEN MEADS SANFADAIR
KENFLEUR SURROGATE ALERT

and some young ones by Langwater Sir Royal. Select one of these to head your herd. All offered are from exceptionally good dams. Call at SANFADAIR FARM, Highway 296, between Stillwater and White Bear, Minnesota or write

SANITARY FARM DAIRIES
415 Grove Street St. Paul 1, Minnesota

Serviceable and Younger Bulls

BULLS—serviceable and younger, sired by: Green Meads Wil-Doen, who has 7 daughters doing very well on AR test. His dam made 695 lbs., a full sister with 804 lbs. B.F. Horse Shoe Conrad's Asterbilt, whose dam made 580 lbs. B.F., a full sister with 911, and 2 AR daughters.

PROVEN INHERITANCE IS YOURS THROUGH THE USE OF ONE OF THEIR SONS, OUT OF A CLASSIFIED AND AR DAM

BRANDTJEN FARMS, Farmington, Minn.

BOULDER BRIDGE FARM CO.

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"Twenty-two years devoted to testing and showing." The Guernsey herd has been continuously on test in C.T.A. since 1926, with a lifetime average of 424.77 lbs. for an average of 61 cows. Over 350 AR records have been completed. The 1947 to 1948 herd average was 402 lbs. for 105 cows. More champions have been exhibited nationally than by any other herd existing.

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BULL CALVES FOR SALE

(With Langwater Bloodlines)

Our herd sires are by Langwater Countryman, Langwater Valencian and Langwater Frolic. Our herd is on A.R. herd test. Here is an opportunity to get tops in type, production, and those good Langwater bloodlines. Priced to sell.

JULIUS MOY, Manager, R. 22, Elkhart, Indiana
Phone: 16F5 Edwardsburg, Michigan

REGISTERED GUERNSEY

BULL CALVES

carrying well known blood lines from outstanding bulls and cow families at prices you can afford to pay. Free leaflets on this selective bull breeding on request.

BURTON LANE FARM
Box 552 Lake Forest, Illinois

GER GAR GUERNSEYS

Registered Guernsey bulls up to service age Sired by Curtiss Candy Levity Paul whose dam has 783 B F full sister 865. Out of 500# 305 day 2x milking dams on farm care. Backed by A R records. Show quality. Write for prices and pedigrees.

GAROLD L. KEPPLE, R. R. No. 1, Canton, Ill.

FOR SALE

MY ENTIRE HERD OF 16 REGISTERED GUERNSEY COWS IN MILK.

All calfhood vaccinated, records average 480 lbs. on 2X milking. Many successfully shown. Sired by Pine Manor bulls and bred to son of McDonald Farms Prediction out of McDonald Farms Faithful with 746 A. One of the best cow families at McDonalds. This 5½ year old bull is also for sale.

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GUERNSEY BULL CALVES

LITTLE FLOWER FARM offers for sale registered Guernsey bull calves out of dams with over 600 lbs. fat and sired by sons of Coronation King of Pine Manor and Pine Manor King Kenfleur.

BOX 173, R. F. D. No. 1 Crete, Illinois

AYRSHIRES

AYRSHIRES
MOST PROFITABLE COWS
4% MILK
Big Milkers - - Hardy Rustlers
Good Grazers - Perfect Udders
Write for literature
Ayrshire Breeders' Association
10 Center St., Brandon, Vt.

AYRSHIRE BULL CALF

Born Dec. 1, by Approved Sire whose Production Index is 9,772 lbs. milk and 412 lbs. fat. Dam is "Excellent" for type. Her five consecutive actual records average 9,926 lbs. milk, 393 lbs. fat in 305 d. 2x. Price $250.

STRATHGLASS FARM, Box 71, Port Chester, N. Y.

AYRSHIRE BULL CALVES

Bred for type, production, quality. Sired by top ranking approved sires and out of high producing dams. Write:

REIDINA FARMS, Newtown, Pennsylvania

AYRSHIRE BULL CALVES

FUTURE HERD SIRES

by Double Approved Sires; from tested and classified dams.

HOOSIERLEA FARMS
Franklin, Indiana

Ayrshire Bull Calf

Ban Tara Henry, serviceable age. Sire: Neshaminy Ace V. G. Dam: Parkway Laura V. G. 305 day 2X milking record at 8 years 477 lbs. fat. Write for information.

BAN TARA FARM, Hudson, Wisconsin

FRANK LUHRS DAIRY COW MARKET

We have large selection on hand.

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YOU can profit with Jerseys, too!

No wonder the swing is to Jerseys. Dairymen with an eye to profits know that record breaking cows are profit-making cows.

★ *In Oregon* — a Jersey was the first officially tested cow in the U. S. to give over 1,000 pounds butterfat in two consecutive lactations on twice-daily milking.

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★ *In North Carolina* — a Jersey bull has 139 tested daughters averaging 9,472 pounds milk, 515 pounds fat!

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Established 1802
ELBERT S. BRIGHAM, Owner

HEAVEN HILL JERSEYS

Standards
BLONDES
Draconis

Three Excellent Herd Sires In Service. Bulls With Character, Priced to Sell. Write Today.

Heaven Hill Farm

Box HD Lake Placid, New York

CHOICE JERSEY BULLS

FROM PROVEN COW FAMILIES

These bulls are by Golden Pinnacle, a "Very Good" son of Brampton Pinnacle Basil, "Excellent" Silver Medal Superior Sire. His dam, a "Very Good" Silver Medal daughter of Brampton World Record.

MAX FORCEY, Woodland, Pennsylvania

Jersey Bulls For Sale

By Proved Sire - From Good Record Dams

We offer sons and grandsons of GOLDEN DREAMER, a proved sire whose first 21 daughters average 519 lbs. fat, and from classified (Herd av. 87%+) cows with official 2X records of 500 to 800 lbs. of fat. Write for further information and for a copy of our free Golden Dreamer booklet.

BENDALE FARMS
401 W. Town Street Columbus 8, Ohio

PRODUCTION BRED JERSEYS

Why not increase your production by buying a son of Brampton W. R. Lord Clair 5 Star son of Brampton Worlds Records and out of Brampton Lord's Clarivol. 930 lbs. B.F. in 365 days 3X.
3 year Herd Ave. 510 Classification Ave. 87.10%

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Crawfordsville Iowa

Champion Production Jerseys

Gold Star Herd. Winning in succession Highest Production Awards State of Georgia over all breeds. Choice bulls and heifers from cows 9,000 to 12,000 lbs. milk, 400 to 700 lbs. fat. Milked Twice Daily. HARRIS PEDIGREE FARM, Box HD, Pelham, Georgia.

MARELYN JERSEYS *offer* **FOR SALE**

Bull calf dropped 11-9-48. Sire: Sir Sparkling Royal whose six nearest parents are Excellent. Dam: Volunteer Design Pearl, Very Good R.O.M. 409 and 575. A tested dam 458 3x 305 m. e.

Write ALVIN K. RINGE, Manager
MARELYN JERSEY FARM, Wadsworth, Illinois

BRYN MAWR FARM OFFERS

Advancer Golden Owl, dropped Apr. 8, 1949. Sire: Advancer Whirlaway, Proved son of Wonderful Advancer. Dam: Owl Golden Sally. "Very Good." 404 M. E. at 2 yrs. 440 M. E. at 3 yrs. 355 lbs. fat in 150 days at 4 yrs. 2x. Write.

FRANK B. ASTROTH, R. 1, So. St. Paul, Minn.

PIXY FARM Ton of Gold bred bull calves up to serviceable age. The herd is producing at a Ton of Gold rate. '48 average 513 lbs. fat; '49 average 519 lbs. fat. Every cow milked 4 yrs. or more can qualify for Ton of Gold.

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Come to Barron County for good productive, healthy, commercial dairy cows and foundation purebreds. Our county associations cooperate to render sales service to buyers. Write BARRON CO. COOP. DAIRY CATTLE SALES ASS'N, BARRON, WIS.

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100 Jersey and Guernsey Springer Cows. All TB-abortion tested. Special attention to order buying. W. L. BUSH, Springfield, Mo. Phone 906, Night Phone 151, Rogersville, Mo.

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Young Jersey bulls and bull calves for sale. Imported and Biltmore breeding. Heavy production. $100.00 up. Two 5-Star Sons of Xenia Sparkling Standard in service. Free list. ENNIS STOCK AND DAIRY FARM, Festus, Missouri.

Sale Announcements

Feb. 13 — Guernseys. "Valley of the Nile" promotional sale. Simonton, Texas. Mort Woods, Sale Mgr., Ardmore, Okla.

April 5—Guernseys. Waukesha County Guernsey Breeders Annual Sale at Waukesha, Wisconsin. Frank Fox, Jr., Sec.

April 26—Guernseys. Iowa Guernsey Breeders Association Sale at Waterloo, Ia. C. H. Jennings, Sale Manager, Iowa City, Iowa.

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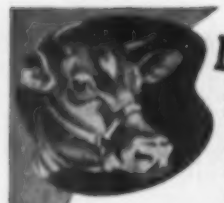

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4. Excellent results—92.6% cures authoritatively reported.
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6. No breakage—MASTICS *with Streptomycin* are flexible; seldom break—never crumble.
7. Lowest cost—Materials used are well past the expensive developmental stage. Large available supplies mean low cost to you.

Get either MASTICS *with Streptomycin* or regular Penicillin MASTICS from your veterinarian—no one else is so well qualified to advise you in their use. If he cannot supply you, send us his name and address.

*caused by Strep. agalactiae, B. coli, Aerobacter aerogenes

The Martin Laboratories
West Chester, Penna.

WANT THE HORNS OFF?

WANT to make a polled calf out of a horned one, without pain or blood, fuss or muss?

Just use PŌL, the new Dr. Hess chemical dehorner. This wonderful product takes the place of old-fashioned caustics. It does not weep. Does not endanger the calf's eyes. Does not burn the cow's flanks or udder.

Everyone tells us PŌL is a truly fine dehorner—so easy to use—painless and safe. Get PŌL from your Dr. Hess dealer—or write Dr. Hess & Clark, Inc., Ashland, Ohio.

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SPOHN'S UDDER-AID

Kills Germs on Contact

Injured, cut or chapped teats and udders should have prompt, antiseptic treatment. Apply Spohn's UDDER-AID. Helps prevent infection. Aids prompt healing. Ideal for massaging congested udders. 70¢ at drug stores or sent direct. Spohn Medical Co., Goshen, Indiana.

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It's Horse-sensible to BE PREPARED

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If Your Dealer Does Not Handle Goods Advertised in Hoard's Dairyman—Ask Him Why!

Cow Health With Cow Comfort

A study of conditions and practices in dairies noted for high production, always shows that the owners attach importance to cow comfort and health. These dairymen keep in mind that a dairy cow is a delicate creature with a temperament and nature as sensitive as that of a race horse.

Considerate dairymen do not disturb cows except when they are being milked, fed, or otherwise cared for, says Enos J. Perry, New Jersey extension dairyman. Cows are creatures of habit and if their regular routine is upset, the effects can be seen in the milk pail.

Kindness, in other words, pays big dividends. Perry suggests making the cows as comfortable as possible at all times. Provide plenty of bedding. Prevent injuries due to slippery floors and too narrow doors. Have a system of ventilation that prevents drafts over the cows.

In short, form the habit of watching the herd so that any trouble will be detected and treatment given in the first stages.

Germs of Pinkeye Linger

Farmers and veterinarians often have battled outbreaks of pinkeye in cattle herds with apparent success, only to have the disease bob up again at a later date. A possible explanation for this, says the Journal of the American Veterinary Medical Association, is that a germ commonly involved in this infection will persist in the eyes of cattle even after they recover from an attack. The recovered animals thereby become carriers, spreading the germs when conditions become favorable for another outbreak. This also may explain how newly purchased animals which seem to be perfectly healthy can introduce pinkeye into a herd previously free of the disease.

Wiry, This Cow

Writing in a current issue of the Indian Veterinary Journal, Dr. Vaidyanathan reports that he removed a 70-inch length of uninsulated electric wire from the rumen of a cow.

When a calf is being born, don't wait for the cow to labor for five or six hours before you finally call your veterinarian. If the calf has not been born after an hour or so of labor, check for its position. If it is abnormal, call your veterinarian then. This suggestion comes from Dr. Ray Hatch, veterinarian in the University of Illinois. Then, after the calf is born, disinfect the navel immediately with iodine and dry the calf off with a sack if the cow doesn't lick it dry. And here are some other precautions he suggests taking: Avoid drafts in the calf pen, have plenty of fresh, dry bedding, and keep the temperature moderate.

Excessive dosages of drugs and concoctions are sources of trouble in cattle poisoning which unfortunately are not always realized, according to W. D. Pounden, veterinarian with the Department of Dairy Industry at the Ohio Agricultural Experiment Station.

A little medicine or a few minerals may assist the natural powers of dairy cows in getting them back to health, but just because of this it does not follow that more will prove even better.

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Veterinary Column

DR. J. W. BAILEY

Vaginal Discharge

Every once in a while we talk with an owner who is disturbed about one or more of his cows that are discharging from the vagina. The "matter" may be clear mucus or gray or white or bloody or some combination of the same. Affected animals may be open or pregnant; recently bred or recently fresh. They may or may not show other symptoms to indicate sickness. Well, what about this business of vaginal discharges?

Cause

A clear mucus discharge is normal at the time of heat. So is a bloody discharge afterward or for varying periods following calving. At other times a bloody discharge may indicate kidney infection, bladder stones, approaching abortion, or some kind of injury to the genital organs. A white or grayish discharge is given that color by pus which is a definite sign of infection somewhere in the reproductive tract. It is often associated with diseases like trichomoniasis or vibrionic abortion. Similar discharges may follow cases of retained afterbirth, difficult calving, and similar events.

Treatment

The true cause of the discharge must be established first of all. Then treatment will naturally depend on what this is found to be. In the case of natural discharges, no treatment will be needed. Localized infections of the reproductive organs may require drainage of pus or powdering or douching with various preparations. In the case of a contagious disease there may be no treatment other than measures for controlling its spread. With so many different factors involved, the services of your veterinarian may be desirable for making a diagnosis. Once he has examined an affected animal, he will probably be able to help you decide on appropriate treatment.

Prevention

Prevention is pretty much a matter of special care at breeding and calving times. Giving cows ninety days rest before breeding them back after calving will help to prevent many later cases of vaginal discharge. So will observance of recommended measures for the control of reproductive diseases in a herd. Clean, well-bedded quarters will aid in preventing infection at calving time, as will extra cleanliness on the part of the one who delivers the calf or treats the cow afterwards for such things as retained afterbirth.

The vaginal discharges that can be treated are caused by infections. Consequently, avoiding infections means prevention of vaginal discharges. Try it and see if it doesn't work out that way for you.

A HARD MILKER

I would like to ask you if there is any help for a hard milking cow. I have a 2-year-old Guernsey that milks quite hard.

Cadott, Wis. C. P. Z.

The teats of hard milking cows can usually be opened up a little by surgery to make them milk easier. This job should be attempted only by a veterinarian or infection may set in and cause the cow to lose her entire udder with mastitis.

We don't know of anything else that is likely to give the desired results. Dilators, "teat plugs", etc., have never been very satisfactory for us, and are very likely to cause udder infection if used for very long periods of time.

ADVANCED LUMPY JAW

I have a purebred Guernsey cow on my farm which had its first calf in January and promised to be a fairly good animal. Last March or April we noticed that she developed what is called lumpy jaw. The local veterinarian has treated her with injections and what have you, but with no results. She is soon to have her second calf and the swelling on her jaw is getting worse. We are afraid we might lose her. It hasn't bothered her apparently otherwise up to this point but now it seems as if she doesn't eat as well.

Cleveland, O. R. R.

Since the lumpy jaw of your heifer has gone this long without responding to veterinary treatment, the chances are against her recovery. Her present failure to eat probably stems from loose teeth and decay of her jawbone at the site of the swelling. When this stage is reached there is usually nothing to be done for an affected animal.

It is likely that she will live until her calf is born, even if she doesn't eat too well in the meantime. We suggest that you keep her until her calf is born and then dispose of her.

The iodides that are usually employed for injection against lump jaw are dangerous when used on cows in advanced pregnancy as this heifer is. Such drugs are very likely to cause abortions.

THUMPS

Do bovines transmit thumps to each other through contact in eating, or how?

Loganville, Ga. H. O'K.

Thumps is a symptom of other troubles rather than a disease by itself. As you may have noticed, the condition is much like hiccups in human beings and as such is not transmissible. Thumps in calves is usually due to infection with worms, and such trouble may be so widespread as to make the thumps seem contagious. Prevention naturally hinges on a program of worm control.

First Lactation Critical

The first lactation is the critical one for every young cow. Not only is she in a new environment in the milking line after having spent most of her life on pasture and in a shed, but she is expected to make good at the pail, help build a favorable reputation for her sire and dam, and keep on growing at the same time.

Every heifer needs to be well grown for her age and in good flesh. She should be put in the milking line two or three weeks before freshening so that she may become accustomed to her surroundings and get over all nervousness before her milking life begins.—E. J. PERRY.

Fieldman Bob Keithley, of Dayton, talks over the proper care of a teat cup with Dairyman Paul Boerger, of Fort Loramie, Ohio.

"THE B-K PLAN SAVED THE COST OF SEVERAL GOOD COWS"

. . . says Farmer Paul Boerger, Fort Loramie, Ohio

Here's one dairy farmer who did something about the ever-present danger of Mastitis!

Mr. Paul Boerger—realizing how this disease might flare up at any time and cost him a lot of money—decided to consult his fieldman, Mr. Bob Keithley, of the Blossom Hill Dairy, Dayton, Ohio.

Together the two of them talked over the advantages of the B-K Sanitation Plan. Mr. Keithley explained that it consisted mostly of wiping cows' teats and udders with warm solutions of B-K powder . . . maintaining warm, dry bedding . . . using strip cups . . . cleaning and sanitizing milking utensils with General Manual Kleanser or MC-3 and B-K Powder. Dairyman Boerger was convinced!

"No more trouble for me," he writes, "since my fieldman showed me the easy, common-sense B-K System. I've been following his advice faithfully, and I figure the B-K System has already saved me the cost of several good cows! No wonder I'm a B-K booster!"

Many another farmer—with the help of his fieldman—gets amazing benefits through the B-K Sanitation Plan . . .

Bill Grabandt, Jr., Verona, Wis., writes that the money he saved with the B-K Plan helped him to buy a new milkhouse!

Herb Harrold, Summitville, Ind., claims that higher quality milk paid for his cooler—thanks to the B-K Plan!

Kelly L. Gleaves, Hermitage, Tenn., says that with the help of the B-K Plan, his milking machine practically paid for itself!

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